## TS 25.331 V1.1.0 (1999-06)

Technical Specification

3<sup>rd</sup> Generation Partnership Project (3GPP); Technical Specification Group (TSG) RAN; Working Group 2 (WG2);

**RRC Protocol Specification** 



The present document has been developed within the 3rd Generation Partnership Project (3GPP<sup>TM</sup>) and may be further elaborated for the purposes of 3GPP.

The present document has not been subject to any approval process by the 3GPP Organisational Partners and shall not be implemented.

This Specification is provided for future development work within 3GPP only. The Organisational Partners accept no liability for any use of this Specifications and reports for implementation of the 3GPP M system should be obtained via the 3GPP Organisational Partners' Publications Offices.

Reference <Workitem> (<Shortfilename>.PDF)

Keywords The Control of the Control

..... <keyword[, keyword]>.....

and the second

The second of the commence of the second of

the second of th

and the second of the second o and the second of the control of the and the second of the second of the second of the second of the second of

The second of th

Survey of the second of the se

National Applications

2.3.5

the same of the sa 

Postal address ( Cartal by the larger) and select this prothe second of the second of th

Office address. The mar history and marries at the con-The second of the second of th

or a service of the second of Internet. - Make I make the Allegree well as a second

State that

secretariat@3gpp.org.scipping.scipping.displays.adi Individual copies of this deliverable and the confidence with the confidence of this deliverable. can be downloaded from

o kara en lega este da Polent Vinau Silva III en Engla diversada i la Policia Audustra este incluidad. Le anno en le como de Grandista i compresa a la Carta de Maria Angla III a lega antica de General de Vinau Audustra.

The first is the trible with the second of the second

the affective and with the world of the second of the seco

fr.

http://www.3gpp.org

## Contents

	Scope	8
	Deferences	8
	Definitions, Symbols and abbreviations  Definitions	8
3.	Definitions, Symbols and abbreviations	8
3.1	Definitions	8
3.2	Abbreviations	•
ŀ.	Abbreviations	9
5	RRC Services provided to upper layers	. 11
<b>.</b>	Services expected from lower layers	.11
5.1	Services expected from Layer 2	
5.2	Services expected from Layer 1	. 11
ے <b>۔</b> ر	Functions of RRC	
7		
8	Elementary RRC procedures	. 12
8.1	Idla mode procedures	. 13
8.1.		. 13
8.1.	Paging	13
8.1.	Notification	14
8.2	RRC connection establishment and release procedures	14
8.2.	RRC Connection Establishment	14
8.2.	DDG C wiles Delege	13
8.2.		16
8.3	RRC connected mode procedures	16
8.3.	1 Radio Access Rearer Related Procedures	
8.3.	1 1 Radio Access Bearer Establishment	10
8.3.	1.2 Padio Access Bearer Release	F
8.3.	1.2 Radio Access Bearer and signalling link Reconfiguration	18
8.3.	2 Transport Channel Reconfiguration	10
8.3.	2 Transport Format Combination Control Science	15
8.3.		
8.3	5 Mobility Related Procedures admir/10.46 1.47 1.46 1.46 1.46 1.46 1.46 1.46 1.46 1.46	20
8.3	Madification of the active set when in Soft hand-over	20
8.3	5.2 Hard handover (FDD and TDD hard)	2
8.3	5.2 Inter-system hard hand-over (GSM/BSS to UTRAN)	2
0.2	Inter system hard-over (ITRAN to GSM/BSS, PSTN/ISDN domain services)	2
0.2	5.5 Inter-system cell reselection (LTRAN to GSM/GPRS, IP domain services)	2
83	5.6 Inter-system cell reselection (GSM/GPRS to UTRAN, IP domain services)	2
	5.7 ITR A undate	4
83	5.8 Cell undate	•••
8.3	5 9 RNTI reallocation	2
8.3	6 RRC Connected mode procedures which use raging	•••
	.6.1 Core network originated paging	2
	.6.2 UTRAN originated paging	2
8.3		2
8.3		2
	8.1 Transmission of UE capability information	2
	8.2 Sending of system information in RRC connected mode	2
0.2	9.2 Direct transfer	3
0.5	5.8.4 RRC status procedure	3
0.5	7.0.7 ICC Julius procedure	?
9	Primitives between RRC and upper layers	
10	Message and information element functional definition and content	3
10	.1 Radio Resource Control messages	3

the man and the state of the st	p
10.2.7.2 Measurement Command 10.2.7.3 Measurement Type	74
10.2.7.3 Measurement Type	74
10.2.7.4 Reference time difference to cell	<del> 74</del>
10.2.7.5 Measured time difference to cell	75
10.2.7.6 Measurement reporting mode	75
10.2.7.7 Intra-trequency cell info	7.5
10.2.7.8 Inter-trequency cell info	76
10.2.7.9 Inter-system cell info	. 76
10.2.7.10 Traine volume measurement object	76
10.2.7.11 Quality measurement object (FFS)	: 76
10.2.7.12 Intra-frequency measurement quantity 10.2.7.13 Inter-frequency measurement quantity (FFS)	76
10.2.7.13 Inter-frequency measurement quantity (FFS)	77
10.2.7.14 inter-system measurement quantity (FFS)	-0.77
10.2.7.15 Traffic volume measurement quantity	17.77
10.2.7.16 Quality measurement quantity (FFS)	78
10.2.7.17 Intra-frequency reporting quantity	78
10.2.7.18 Inter-frequency reporting quantity (FFS)	78
10.2.7.19 Inter-system reporting quantity (FFS)	∵72
10.2.7.20 Traffic volume reporting quantity 10.2.7.21 Quality reporting quantity (FFS)	79
10.2.7.21 Quality reporting quantity (FFS)	79
10.2.7.22 Intra-frequency measurement reporting criteria	7,9
10.2.7.22 Intra-frequency measurement reporting criteria 10.2.7.23 Inter-frequency measurement reporting criteria (FFS)	80
10.2.7.24 mor-system measurement reporting criteria (FFS)	XO
10.2.7.25 Traine volume measurement reporting criteria	81
10.2.7.26 Quality measurement reporting criteria (FFS)	81
10.2.7.27 Periodical reporting criteria	81
10.2.7.28 Intra-frequency measurement event results	82
10.2.7.29 Inter-frequency measurement event results (FFS)	82
10.2.7.30 Inter-system measurement event results (FFS)	82
10.2.7.31 Traffic volume measurement event results	82
10.2.7.32 Quality measurement event results (FFS)	83
10.2.7.33 Measured results	83
10.2.8 Other Information elements	83
10.2.8.1 BCCH modification info	83
10.2.8.2 Inter-system message.	84
11 Message and Information element abstract syntax (with ASN.1)	84
12 Message transfer syntax	85
13 Protocol states	85
14 Protocol timers, counters and other parameters	85
15 Specific functions (if applicable)	
16 Handling of unknown, unforeseen and erroneous protocol data.	85
17 SDL	
T. P.	85
19 History	0.0

## Intellectual Property Rights

[Editor's note: This paragraph has been modified from corresponding ETSI text in anticipation of a new version regarding 3GPP.]

IPRs essential or potentially essential to the present deliverable may have been declared to 3GPP. The information pertaining to these essential IPRs, if any, is publicly available for 3GPP members and non-members, free of charge. This can be found in the latest version of the 3GPP Technical Report: ETR 314: "Intellectual Property Rights (IPRs); Essential or potentially Essential, IPRs notified to 3GPP in respect of 3GPP standards". The most recent update of ETR 314, is available on the 3GPP web server or on request from the Secretariat. Control of the Contro

Pursuant to the 3GPP Interim IPR Policy, no investigation, including IPR searches, has been carried out by 3GPP. No guarantee can be given as to the existence of other IPRs not referenced in the ETR 314, which are, or may be, or may become, essential to the present document.

### Foreword

This Technical Specification has been produced by the 3GPP.

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of this TS, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows: was the same of th

The state of the s

· Version 3.y.z

where:

- x the first digit:
- Figure 1 of the presented to TSG for information; where the control of the control of the manual to the company of the company
- 2 presented to TSG for approval;
  3 Indicates TSG approved document under change control.
- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections,

in the same of the second second

z the third digit is incremented when editorial only changes have been incorporated in the specification.

## 1. Scope

The scope of this specification is to describe the Radio Resource Control protocol for the 3GPP radio system.

	•			
2.	References		र प्रतिकारिक विकास स्थापित । का विकास विकास विकास विकास विकास विकास समिति । विकास समिति । विकास समिति । विकास विकास समिति ।	
			Establish and Alberta Establish	
[1] UMTS 2	25.XX, 'Vocabulary for the UTRAN'		ata ya safi e tiga safiir	Ž ( *
[2] 25.301,	'Radio Interface Protocol Architecture'		A Superior State of the State o	: · · · ·
[3] 25.303,	Description of UE states and procedures in connected	mode'	Segue Segue	- : · ·
			Complete Brains of	\$ \%
				11. 1
3.	Definitions, Symbols and	abbr	eviations	77 W 17
			grant success white is a visit	; I
3.1	Definitions		The facilities of a	****
See [1] for	definition of fundamental concepts and vocabulary		i gorjaan kan kooli la ja	11.00
3.2	Abbreviations		montal Allendar	्रेत <sub>्र</sub> कु
			Service of the servic	1 1 113
ACK	Acknowledgement		Gauga n Formu	77.7
AS	Access Stratum	10 v	e názach naoú zamnoù dio keoù Li	
BCCH	Broadcast Control Channel		11. 11. 12. 12. 13. 14. 14. 14. 14. 14. 14. 14. 14. 14. 14	: 17
BCFE	Broadcast Control Functional Entity		gan a the Erin und	:719
CCCH	Common Control Channel		gerget Energy	
CN	Core Network	, 10 J. F. N.		1.,5
DCA	Dynamic Channel Allocation			the state of the
DCCH	Dedicated Control Channel	1747.X	ger in was as ear Made	
DCFE	Dedicated Control Functional Entity			
DCH	Dedicated Channel			
DTCH	Dedicated Traffic Channel	S. CHEZIANT	and the second of the second o	
FACH	Forward Access Channel			
FAUSCH	Fast Uplink Signalling Channel	,		
FDD	Frequency Division Duplex			•

For Further Study

**FFS** 

T 1		

L1 Layer 1

MAC Media Access Control

MS Mobile Station

NAS Non Access Stratum

NW Network

ODMA Opportunity Driven Multiple Access

PCCH Paging Control Channel

PCH Paging Channel

PNFE Paging and Notification Control Functional Entity

QoS Quality of Service

RAB Radio access bearer

RLC Radio Link Control

RNTI Radio Network Temporary Identifier

RFE Routing Functional Entity

RNC Radio Network Controller

RRC Radio Resource Control

SAP Service Access Point

TDD Time Division Duplex

TF Transport Format

TFCS Transport Format Combination Set

TFS Transport Format Set

TME Transfer Mode Enitity

UE User Equipment

UMTS Universal Mobile Telecommunications System

UNACK Unacknowledgement

UTRAN UMTS Terrestrial Radio Access Network

## 4. General

The functional entities of the RRC layer are described below:

• Routing of higher layer messages to different MM/CM entities (UE side) or different core network domains (UTRAN side) is handled by the Routing Function Entity (RFE)

- Broadcast functions are handled in the broadcast control function entity (BCFE). BCFE offers RRC services by the GC-SAP and uses the lower layer services provided by Tr-SAP.
- Paging of idle mode UE(s) is controlled by the paging and notification control function entity (PNFE). PNFE
  offers RRC services by the Nt-SAP and uses the lower layer services provided by Tr-SAP.
- The Dedicated Control Function Entity (DCFE) handles all functions specific to one UE. The DCFE offers RRC services by the DC-SAP and can use lower layer services of UM/AM-SAP and Tr-SAP depending on the message to be sent and on the current UE service state.
- The Transfer Mode Entity (TME) handles the mapping between the different entities inside the RRC layer and the SAP's provided by RLC.

Logical information exchange is necessary also between the RRC sublayer functional entities. Most of that is implementation dependent and not necessary to present in detail in a specification.

Figure 1 shows the RRC model for the UE side and Figure 2 shows the RRC model for the UTRAN side.

[Editors note: Some further clarification in the diagrams may be beneficial to acknowledge the fact that a DC-SAP for example might be offered over a dedicated channel (with RRC terminated in SRNC) whereas GC-SAP and Nt-SAP may be offered over BCCH, PCH respectively in which cases RRC is located in Node B. It could be concluded from the figure that these channels use the same SAP offered by RLC (Tr-SAP, UM-SAP, AM-SAP) whereas in fact they will use different SAP's, though the SAP type might be the same]

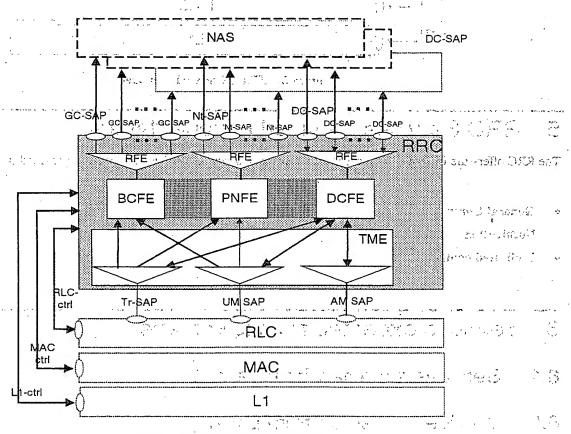


Figure 1) UE side model of RRC

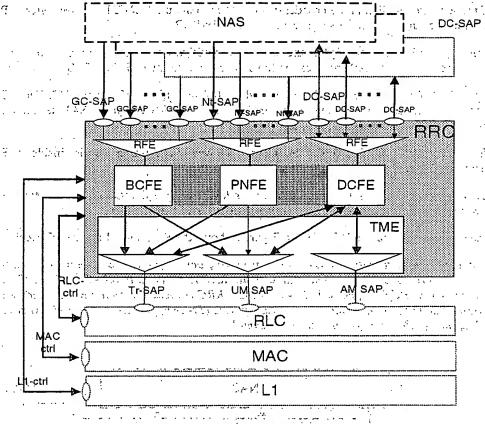


Figure 2) UTRAN side RRC model

## 5 RRC Services provided to upper layers

The RRC offers the following services to upper layers, a description of these services is provided in [2].

- General Control
- Notification
- Dedicated control

## 6 Services expected from lower layers

- 6.1 Services expected from Layer 2
- 6.2 Services expected from Layer 1

## 7 Functions of RRC

The RRC performs the functions listed below, a more detailed description of these functions is provided in YY.01:

A Session regular to the Company of the French Control

RESTAURTMENT OF THE PROPERTY O

- Broadcast of information provided by the non-access stratum (Core Network).
- Broadcast of information related to the access stratum.
- Establishment, maintenance and release of an RRC connection between the UE and UTRAN.
- Establishment, reconfiguration and release of Radio Access Bearers
- Assignment, reconfiguration and release of radio resources for the RRC connection.
- RRC connection mobility functions:
- Arbitration of the radio resource allocation between the cells.
- Control of requested QoS.
- UE measurement reporting and control of the reporting.
- Outer loop power control.
- Control of ciphering.
- Slow DCA.
- Broadcast of ODMA relay node neighbour information in the second second
- Collation of ODMA relay nodes neighbour lists and gradient information
- Maintenance of number of ODMA relay node neighbours
- Establishment, maintenance and release of a route between ODMA relay nodes
- Interworking between the Gateway ODMA relay node and the UTRAN
- Contention resolution (TDD mode) with the content of the content o
- Paging/notification.

The following functions are regarded as further study items: A regarded to the first of the firs

- Initial cell selection and re-selection in idle mode.
- Congestion control.
- Routing of higher layer PDU's (in UE side to correct higher layer entity and in UTRAN side to correct

Commence of the Commence of th

#### Elementary RRC procedures 8

This section describes elementary RRC procedures used in the idle mode and in the connected mode. More description on the different UE modes is provided in [2]. This section also describes procedures for establishing and releasing an RRC connection.

## 8.1 Idle mode procedures and make the make the

#### 8.1.1 Broadcast of system information,

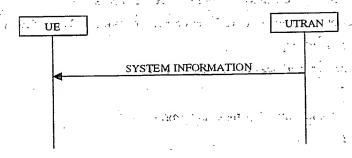


Figure 3) Procedure for broadcast of system information

This procedure is used for broadcasting system information from the network to all UEs in a cell. Only UEs that listen to the logical channel BCCH can be reached by this procedure. The system information is repeated on a regular basis and it includes information from both the access stratum and the non-access stratum. The initiative to change the system information can come from both the access stratum and non-access stratum.

The SYSTEM INFORMATION message is regularly broadcast on the BCH by the UTRAN. Based on this information the mobile station is able to decide whether and how it may gain access to the system via the current cell.

The contents of the SYSTEM INFORMATION messages can come from RRC and from the physical layer measurements of each cell [Editors note: Other sources for the system information are also allowed].

The information may be grouped into the following classes:

- information giving unique identification of the current network, location area, UTRAN registration area and cell
- information used for candidate cell measurements for handover and cell selection procedures
- information describing the current control channel structure
- information controlling the random access channel utilization
- information defining-different options supported within the cell...
- protocol information

[Note: The set of messages that forms the system information is FFS. However, basically the same elementary-procedure can be applied for all messages.]

## 8.1.2 Paging

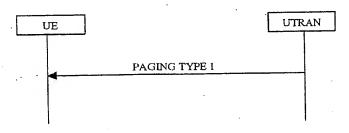


Figure 4) Paging procedure

This procedure is used to broadcast a PAGING TYPE 1 message from the network to selected UEswhich are in idle mode. Only UEs which listen to the correct paging group can be reached by this procedure. The PAGING TYPE 1

message can be sent to either one or many UEs at the same time. (10) (10)

[Note, the following is FFS]: The PAGING TYPE 1 message includes BCCH Modification Information, which indicates the modification of the System Information on BCCH. The coding of BCCH Modification Information is FFS.

[Note: The addresses which are to be used in the paging message (eg IMUI etc) are still to be defined]

[Note: The number of addresses to be used in the paging message needs to be defined].

## 8.1.3 Notification of the production of the prod

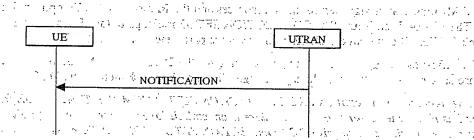


Figure 5) Notification procedure

This procedure is used for broadcast of notification information to selected UEs in a cell. Only UEs that listen to the correct notification group can be reached by this procedure. The initiative to send a NOTIFICATION can come from both the access stratum and the non-access stratum. NOTIFICATION can be sent to either one or many UEs at the same time.

The angle of the termination of the contract of the contract of the second of the contract of

BATTA WEST OF THE STOLEN BASIS OF THE STOLEN

[Note: Notification may be cell specific]

[Note: The usage of this procedure is FFS.] Law 134 of the control of the control

## 8.2 RRC connection establishment and release procedures

### 8.2.1 RRC Connection Establishment

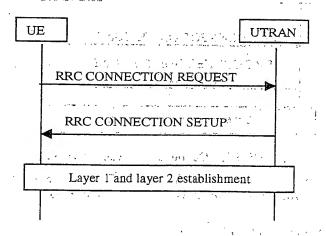


Figure 6) Procedure for RRC connection establishment

This procedure is initiated from the UE side to establish an RRC connection, as a result of either:

- (1) A request from the non-access stratum to establish the first signalling connection for the UE [Note: For a GSM-based Core Network some examples of reasons are: CM Establishment Request and Location Update Request.], or
- (2) A received paging request. [Note: Whether the RRC connection is established with or without an explicit request from UE non-access stratum in this case is FFS.]

The RRC connection establishment is initiated by the UE, which leaves the idle mode and sends an RRC CONNECTION REQUEST message using unassured mode on the uplink CCCH. [Note: The initial identification of the UE is FFS.]

As initial identification in the RRC CONNECTION REQUEST the UE uses a unique Non access stratum identity. This NAS identity could be either TMSI + LAI, P-TMSI + RAI, IMSI or IMEI. [Note: This is pending confirmation from WGI that the RACH can support the required payload when this type of ID is used]

The UTRAN makes an assignment of radio resources and the Radio Network Temporary Identity (RNTI) to be used by the UE. The UTRAN sends an RRC CONNECTION SETUP message to the UE using unassured mode on the downlink CCCH. The message includes radio resource parameters and the RNTI.

The UE configures the layer 2 and layer 1 processing for the DCCH using the radio resource parameters. The procedure successfully ends when the layer 2 signalling link is established on the DCCH.

[Note: The necessity of an explicit RRC CONNECTION SETUP COMPLETE MESSAGE from the UE to the UTRAN on layer 3 is FFS. One assumption is, that there is an explicit layer 2 peer-to-peer signalling to establish the signalling link, making an explicit RRC CONNECTION SETUP COMPLETE message on layer 3 unnecessary.]

Note also that on receipt of an RRC CONNECTION REQUEST message, the RNC can allocate a FAUSCH channel for the UE for the particular cell, in which the UE is camping on, or FAUSCH channels for a number of cells of the URA, in which the UE is currently staying depending on the type of UE. The FAUSCH channels allocated are conveyed to the UE in the RRC CONNECTION SETUP message. The following procedure which could be used during RRC connection establishment is for further study:

On receipt of an RRC CONNECTION REQUEST message, the RNC may allocate a dedicated channel to the mobile station. It is also possible to setup macrodiversity at this point. To do so means that the RRC CONNECTION REQUEST message must contain a measurement report. In this case, the RNC executes branch addition (physical channel activation) to each cell (/NodeB) that will be included in the active set. After the physical channel(s) are setup on the UTRAN side, the RRC CONNECTION SETUP message is sent to the UE on the FACH channel.

## 8.2.2 RRC Connection Release Figure 1

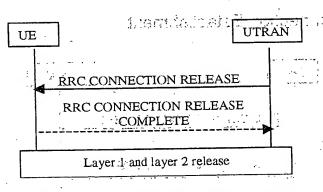


Figure 7) RRC Connection release procedure

A normal RRC connection release procedure is initiated from the UTRAN, e.g. when the last Signaling Connection is released. [Note: Release in case of RRC connection failure is FFS.] [Note: Possibility for UE initiated RRC connection release is FFS.]

Two variants of this procedure have been identified:

- a) RRC connection release from state where dedicated physical channel is available
- b) RRC connection release from state where there is no dedicated physical channel

In the former case (a) the UTRAN sends an RRC CONNECTION RELEASE message to the UE using acknowledged

mode on the DCCH. The UE then leaves the Connected Mode and initiates release of the layer 2 signalling link. The RRC Connection Release procedure ends when all UE dedicated resources (such as radio resources and radio access bearers) tied to the RRC connection are released and the RRC layer is transferred to idle mode.

In the latter case (b) the RRC layer entity in the network issues an RRC CONNECTION RELEASE message using unacknowledged mode on the DCCH. Upon reception of this message the UE-RRC sends an RRC CONNECTION RELEASE COMPLETE message to UTRAN using acknowledged mode on the DCCH. [Note: Depending on RLC design, the acknowledgement to RRC CONNECTION RELEASE could be piggybacked to the RRC CONNECTION RELEASE COMPLETE MESSAGE, resulting in no additional messages. Therefore acked / unacked transmission is considered FFS.]. After receiving the RRC CONNECTION RELEASE COMPLETE message the network RRC layer releases L2 resources and the RRC entity dedicated to this UE goes to Idle Mode.On receipt of the RRC CONNECTION RELEASE COMPLETE message the network releases the FAUSCH channels allocated for the UE going to idle mode if FAUSCH channels have been allocated during RRC connection establishment.

## 8.2.3 RRC Connection re-establishment and the restablishment and the

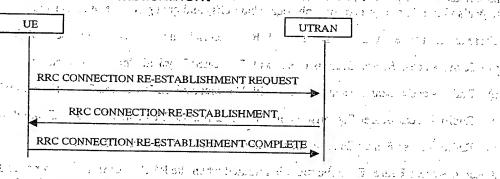


Figure 8) RRC Connection re-establishment

RRC connection re-establishment is needed, when a UE loses radio connection due to e.g. radio link failure. After having selected a new cell, the UE RRC sends the NW RRC an RRC CONNECTION RE-ESTABLISHMENT REQUEST message. The NW RRC configures the NW and acknowledges the connection re-establishment to the UE RRC with an RRC CONNECTION RE-ESTABLISHMENT message. This message may contain the FAUSCH channel(s) valid for this cell, and possibly other cells of the same URA, if FAUSCH channels have been allocated earlier. The UE RRC configures the UE L1 to activate the new radio link(s). After the UE has synchronised to at least one radio link, the MAC and RLC layers can be configured (if necessary).

[Note: The necessity of an explicit RRC CONNECTION REESTABLISHMENT COMPLETE message to be sent from the UE to the UTRAN on layer 3 is FFS. One assumption is, that there is an explicit layer 2 peer-to-peer signalling to establish the signalling link, making an explicit RRC CONNECTION REESTABLISHMENT COMPLETE message on layer 3 unnecessary].

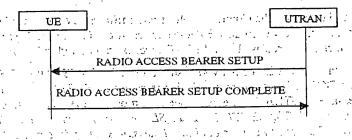
## 8.3 RRC connected mode procedures

## 8.3.1 Radio Access Bearer Related Procedures

### 8.3.1.1 Radio Access Bearer Establishment

A Armington

19.15% 1.38% 1.10% 1.10



eged D. Wieser, Exclusinguae no Etchill a HOLA Etchill BARMON, ACCH Figure 9) Radio Access Bearer Establishment Procedure The Land Control of the state of the Control of the

ng in tuanitus las ingresas est est in gad aux Provincios de la avail de This procedure establishes a new radio access bearer. The establishment includes, based on QoS, assignment of RLC parameters, multiplexing priority for the DTCH, scheduling priority for DCH, TFS for DCH and update of TFCS. It may also include assignment of a physical channel(s) and change of the used transport channel types / RRC state.

There are a number of alternative methods by which radio access bearers may be established:

- Radio Access Bearer Establishment with Dedicated Physical Channel Activation
- 有上的 南州、铁巴维(多种)的人。 Radio Access Bearer Establishment with Unsynchronised Dedicated Physical Channel Modification
- Radio Access Bearer Establishment with Synchronised Dedicated Physical Channel Modification
- Radio Access Bearer Establishment without Dedicated Physical Channel

A Radio Access Bearer Establishment is initiated when the RRC layer in the network sends a RADIO ACCESS. BEARER SETUP message to its peer entity. This message contains L1; MAC and RLC parameters and in the synchronised case an activation time. RRC on the UE side then configures L1 and MAC and creates a new RLC entity associated with the new radio access bearer. A similar reconfiguration is also done on the network side. The UE then sends a RADIO ACCESS BEARER SETUP COMPLETE message back to the network.

[Note: The possibility of establishing multiple radio access bearers within one message is FFS] is to be an expected as the state of the sta

## Radio Access Bearer Release

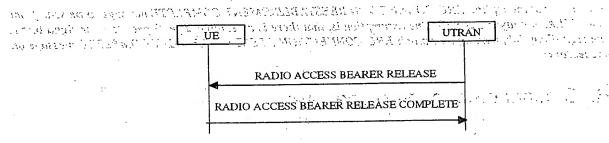


Figure 10) Radio Access Bearer Release Procedure

This procedure releases a radio access bearer. The RLC entity for the radio access bearer is released. The procedure may also release a DCH, which affects the TFCS. It may include release of physical channel(s) and change of the used transport channel types / RRC state.

The Radio Access Bearer Release procedure is initiated by the RRC layer on the NW side. A RADIO ACCESS BEARER RELEASE message is sent from the RRC layer in the network to its peer entity in the UE. This message includes possible new L1, MAC and RLC parameters for remaining radio access bearers and indentification of the radio access bearer to be released. [Note: In synchronised case a specific activation time would be needed for the change of LI and L2 configuration to avoid data loss.]

Cartain and Specifical Conference of

The RRC on the UE side configures LI and MAC, and releases the RLC entity associated to the released radio access bearer. A similar reconfiguration is also done on the network side.

Finally, RRC on the UE side sends a RADIO ACCESS BEARER RELEASE COMPLETE message to the network.

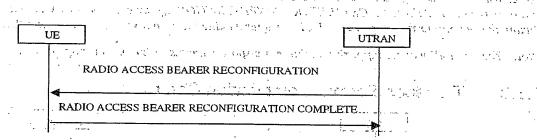
Currently the following alternative methods have been identified by which Radio Access Bearers may be released: of laboration of the factor of the control of the c

- a) Radio Access Bearer Release with unsynchronised dedicated physical channel modification
- b) Radio Access Bearer Release with synchronised dedicated physical channel modification
- c) Radio Access Bearer Release without dedicated physical channel modification

[Note: When a radio access bearer carried on a DCH is released, it is FFS, whether the UE should acknowledge the RADIO ACCESS BEARER RELEASE message before making the reconfiguration (on the DCH) or after making the reconfiguration (on the RACH)] takes a seen are the contact that a contract the contract that

[Note: The possibility of releasing multiple radio access bearers within one message is FFS].

#### 8.3.1.3 Radio Access Bearer and signalling link Reconfiguration



A CONTRACT OF THE WAY SERVICE AND A STATE OF THE STATE OF

Figure 11) Radio Access Bearer and signalling link Reconfiguration Procedure

This procedure reconfigures parameters for a radio access bearer or the signalling link to reflect a change in QoS. It may include change of RLC parameters, change of multiplexing priority for DTCH/DCCH, change of DCH scheduling priority, change of TFS for DCH, change of TFCS, assignment or release of physical channel(s) and change of used transport channel types.

Currently identified options by which Radio Access Bearers may be reconfigured: Carrently identified options by which Radio Access Bearers may be reconfigured.

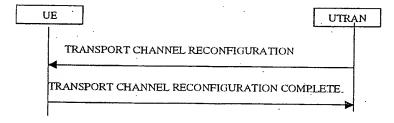
- Synchronised Radio Access Bearer reconfiguration
- Unsynchronised Radio Access Bearer reconfiguration

[Note: When the reconfiguration involves a change of transport channel (eg. from DCH/DCH to RACH/FACH), it is FFS, whether the UE should acknowledge the RADIO ACCESS BEARER RECONFIGURATION message before making the reconfiguration (eg. on the DCH) or after making the reconfiguration (eg. on the RACH)]

[Note: The possibility of reconfiguring multiple radio access bearers and signalling links within one message is FFS] ารัก และรัฐสาขาก และเการาชสุดพรัฐสารณ์ที่ เการาช และเการเการ์ (พ.ศ.)

the transfer to the second

#### Transport Channel Reconfiguration 8.3.2



183

wallanger step of those with thought in the first open of

#### Figure 12) Procedure for transport channel reconfiguration

This procedure configures parameters related to a transport channel such as the TFS. The procedure also assigns a TFCS and may change physical channel parameters to reflect a reconfiguration of a transport channel in use.

A change of the transport format set for a transport channel is triggered in the RRC layer in the network. A TRANSPORT CHANNEL RECONFIGURATION message is then sent from the RRC layer in the network to its peer entity. This message contains the new transport format set, a new transport format combination Set and may include physical channel parameters, i.e. new parameters for L1 and MAC. [Note1: In a synchronised procedure a specific activation time is needed for the change of L1 and L2 configuration to avoid data loss.] When this message is received in the UE a reconfiguration of L1 and MAC is done. A similar reconfiguration is also done on the network side. Finally, a TRANSPORT CHANNEL RECONFIGURATION COMPLETE message is returned to the network.

Currently identified options by which transport channels may be reconfigured:

- a) Synchronised transport format set reconfiguration
- b) Unsynchronised transport format set reconfiguration
- c) Pre-configuration of TFS/TFCS for a transport channel not yet in use

[Note: When the reconfiguration involves a change of transport channel it is FFS, on what channel the UE should acknowledge the TRANSPORT CHANNEL RECONFIGURATION message, ie. whether it should acknowledge before making the reconfiguration (eg. on the DCH) or after making the reconfiguration (eg. on the RACH)]

[Note: The possibility of reconfiguring multiple transport channels within one message is FFS]

## 8.3.3 Transport Format Combination Control

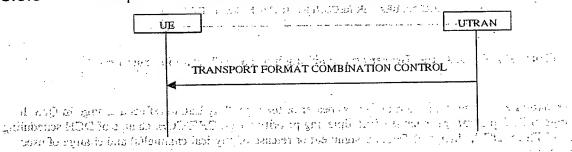


Figure 13) Transport Format Combination Control Procedure

The network uses this procedure to control which transport format combinations (within the transport format combination set) can be used by the UE in the uplink. An example of when this procedure might be used is when a congestion situation occurs such that it is desirable to temporarily restrict the TFC's in use.

This procedure is initiated with a TRANSPORT FORMAT COMBINATION CONTROL message sent from the network to the UE. This message defines the subset of the complete Transport Format Combination Set which the UE is allowed to use, or in case of relieving a temporary restriction, a TFCS which is identical to the complete original set. The UE then reconfigures MAC which thereafter uses the new TFC set. The TRANSPORT FORMAT COMBINATION CONTROL message may be sent as unacknowledged data transfer (FFS) since it is assumed that it does not matter if one UE out of many misses this information and stays with the old TFCS.

### 8.3.4 Physical Channel Reconfiguration

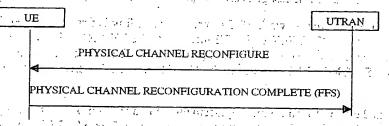


Figure 14) Physical Channel Reconfiguration procedure

This procedure may assign, replace or release a set of physical channels used by an UE. As a result of this, it may also change the used transport channel type (and RRC state). For example, when the first physical channel is assigned the UE enters the DCH/DCH state. When the last physical channel is released the UE leaves the DCH/DCH state and enters a state (and transport channel type) indicated by the network. A special case of using this procedure is to change the DL channelization code of a dedicated physical channel. [Note: The procedure does not change the active set, in the downlink the same number of physical channels are added or replaced for each radio link.]

Currently identified motivations for using this procedure (methods by which physical channels may be reconfigured):

- a) Assignment of dedicated physical channel (switch from common channels to dedicated physical channel)
- b) Synchronised replacement (modification) of dedicated physical channel (eg. for D/L code tree re-organisation)
- c) Release dedicated physical channel (switch from dedicated physical channel to common channels).
- d) This procedure can also be used to add further FAUSCH channels (e.g. for use in other cells of the URA, to which a UE might move in the future when the UE already has an RRC connection.)

## 8.3.5 Mobility Related Procedures 100 AND 2000

## 8.3.5.1 Modification of the active set when in Soft hand-over

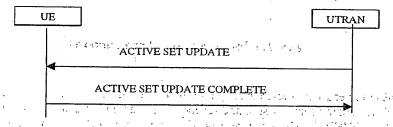


Figure 15) Procedure for modifying the active set when in soft hand-over

There are three alternative ways of modifying the active set which have been identified:

- a) Radio link addition
- b) Radio link removal
- c) Combined radio link addition and removal

Radio link addition is triggered in the network RRC layer. The NW RRC first configures the new radio link. Transmission and reception begin immediately. The NW RRC then sends an ACTIVE SET UPDATE message to the

UE RRC. The UE RRC configures layer 1 to begin reception. After confirmation from the physical layer in UE an ACTIVE SET UPDATE COMPLETE message is sent to the NW RRC

Radio link removal is triggered by the network RRC layer. The radio link is first deactivated by the UE and then in the NW. The NW RRC sends an ACTIVE SET UPDATE message to the UE RRC. The UE RRC requests UE L1 to terminate reception of the radio link(s) to be removed. After this the UE RRC acknowledges radio link removal with an ACTIVE SET UPDATE COMPLETE message to the NW RRC. The NW RRC proceeds to request the NW L1 to release the radio link.

The NW RRC determines the need for radio link replacement. When radio links are to be replaced, the NW RRC first configures the NW L1 to activate the radio link(s) that are being added. The NW RRC then sends an ACTIVE SET UPDATE message to the UE RRC, which configures the UE L1 to terminate reception on the removed radio link(s) and begin reception on the added radio link(s). If the UE active set is full, an old radio link has to be removed before a new one can be added. If the UE has only one radio link, then the replacement must be done in reverse order (first add, then remove). Note: The present assumption is that the order of the replacement can be left to the UE. The UE RRC acknowledges the replacement with an ACTIVE SET UPDATE COMPLETE message. The NW RRC then configures the NW L1 to terminate reception and transmission on the removed radio link.

[Editors note: Presumably the radio link replacement procedure can be used for intra-frequency(make before break) hard hand-off]

[Editor's note: TDD active set update will also be supported if the L1 group identifies the requirement]

8.3.5.2 Hard handover (FDD and TDD hard)

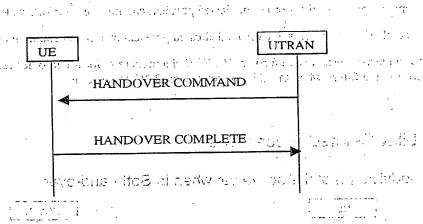


Figure 16) Inter-frequency hard handover

The NW RRC determines the need for inter-frequency hard handover and then configures the NW L1 to activate the new radio links. The NW L1 begins transmission and reception on the new links immediately. The NW RRC then sends the UE RRC a HANDOVER COMMAND message. The message indicates the radio resources that should be used for the new radio link, and can include a FAUSCH channel for the new cell, if the UE has not already been assigned a valid FAUSCH channel for the new cell. The UE RRC configures the UE L1 to terminate reception on the old radio link and begin reception on the new radio link.

After the UE L1 has achieved downlink synchronisation on the new frequency, a L2 link is established and the UE RRC sends a HANDOVER COMPLETE message to the NW RRC. After the L3 acknowledgement has been received, the NW RRC configures the NW L1 to terminate reception and transmission on the old radio link.

[Note 1: Whether it should be possible to setup several radio links immediately on the new frequency is FFS.]

[Note 2: The suspension and resuming of the CC and MM signalling during handover is FFS.]

## 8.3.5.3 Inter system hard hand-over (GSM/BSS to UTRAN)

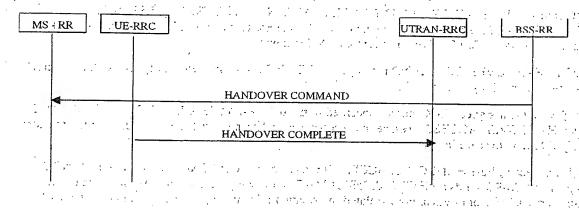


Figure 17) Procedure for Inter-system hard hand-over - GSM to UTRAN

The handover from GSM/BSS to UTRAN for a dual-mode GSM MS / UMTS UE is described.

On the network side, the RRC layer performs admission control and radio resource allocation, assigning an RNTI for the RRC connection and selecting radio resource parameters (such as transport channel type, transport format sets, etc.).

The selected parameters including the RNTI, aretransmitted to the UE via the upgraded GSM RR message HANDOVER COMMAND. Upon reception of the HANDOVER COMMAND message, the UE RRC configures L1 and L2 using these parameters to locally establish the DCCH logical channel. Layer 1 indicates to RRC when it has reached synchronisation. An RLC signalling link establishment is then initiated by the UE. A HANDOVER COMPLETE message is finally sent by the UE RRC.

## 8.3.5.4 Inter system hard hand-over (UTRAN to GSM/BSS, PSTN/ISDN domain it is services)

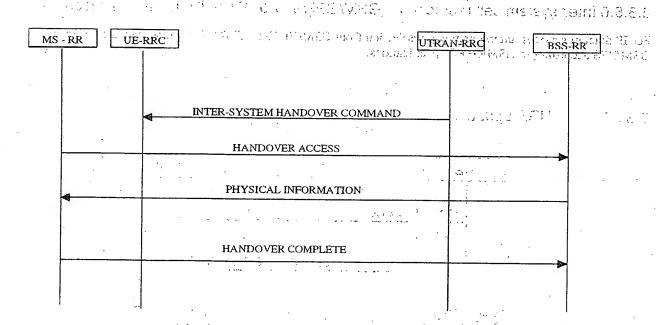


Figure 18) Inter system hard hand-over (UTRAN to GSM/BSS), PSTN/ISDN services, successful case [Note: The scope of this description is restricted to a UE having a connection only to PSTN/ISDN services, i.e. no simultaneous IP connection!

For PSTN/ISDN domain services UTRAN Inter-System Handover procedure is initiated from the UTRAN.

The UTRAN RRC sends an INTER-SYSTEM HANDOVER COMMAND (type UTRAN-to-BSS HARD HANDOVER) to the UE to start the execution of the handover. This message contains all the information needed for the UE to be able to switch to the GSM cell and perform a GSM handover.

Upon reception of the HANDOVER COMMAND message, the UE RRC layer can then locally release the resources on the RLC, MAC and physical layers of the UE.

After having switched to the assigned GSM channel specified in the INTER-SYSTEM HANDOVER COMMAND, the MS RR sends a HANDOVER ACCESS message in successive layer 1 frames, just as it typically would have done for a conventional GSM handover initiation.

When the BSS-RR has received the HANDOVER ACCESS it indicates this to the CN/AS by sending a HANDOVER DETECT message. The BSS-RR sends a PHYSICAL INFORMATION message to the GSM MS in unacknowledged mode that contains various fields of physical layer -related information allowing a proper transmission by the MS.

After layer 1 and layer 2 connections are successfully established, the GSM MS returns the HANDOVER COMPLETE message.

The UTRAN is then able to release the resources that were used by the UE in UTRAN Connected Mode.

If the UE is unable to execute the Inter-System Handover or if low layer failure happens on the UE side on the GSM/BSS channel before HANDOVER COMPLETE has been sent, the UE deactivates the new GSM/BSS channel and reactivates the UTRAN connection.

The UE then sends a INTER-SYSTEM HANDOVER FAILURE message and resumes normal operation as if no Inter-System Handover have occurred.

### 8.3.5.5 Inter system cell reselection (UTRAN to GSM/GPRS, IP domain services)

Clare to the state of the control of the control

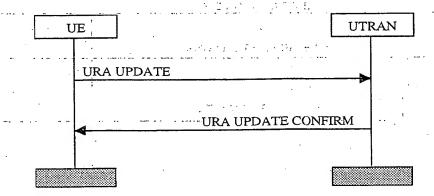
For IP domain services, intersystem cell reselection from UTRAN to GSM/GPRS is initiated by the UE, or ordered by the network with the INTER-SYSTEM HANDOVER COMMAND message.

## 8.3.5.6 Inter system cell reselection (GSM/GPRS to UTRAN, IP domain services)

For IP domain services, intersystem cell reselection from GSM/GPRS to UTRAN is initiated by the UE or by GSM/BSS according to GSM/GPRS specifications.

#### 8.3.5.7 URA update

机型 特别 医胸膜 维拉克斯



1.5612.14 100.014.75.4.11

Figure 19) URA update procedure.

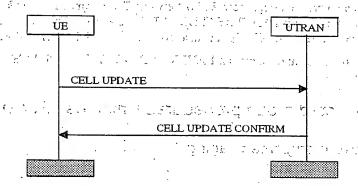
The URA update procedure is normally used by the UE to inform the UTRAN that the UE has switched to a new

URA. In that case the procedure is triggered after change of cell and after the UE have read information broadcasted by UTRAN indicating change of URA. The procedure can also be triggered by expiry of a URA update periodicity timer in the UE.

The UE establishes a radio link to a cell in the new URA. After that the UE sends a URA UPDATE message to the UTRAN. Upon reception of the message the UTRAN registers the change of URA, and sends a URA UPDATE CONFIRM message to the UE. The URA UPDATE CONFIRM message may include a new C-RNTI and/or S-RNTI plus SRNC identity.. In the latter case, the UE transmits an RNTI REALLOCATION COMPLETE message as confirmation. The URA UPDATE CONFIRM message may also contain new NAS system information.

[Note1: Whether it should be possible for the UTRAN to trigger a URA update request from the UE is FFS.]

#### 8.3.5.8 Cell update



AND THE PROPERTY.

Figure 20) Cell update procedure.

The cell update procedure is normally used by the UE to inform the UTRAN that the UE has switched to a new cell. In this case the procedure is a forward handover procedure, and is triggered after change of cell and after the UE has read information broadcasted by UTRAN. The procedure can also be triggered by expiry of a cell update periodicity timer in the UE or in cases when the UE requests a new C-RNTI.

In case of cell reselection, the UE abandons the radio link to the old cell and establishes a radio link to the new cell. After that the UE sends a CELL UPDATE message to the UTRAN. Upon reception of the message the UTRAN registers any change of cell, and sends a CELL UPDATE CONFIRM message to the UE.

The CELL UPDATE CONFIRM message may include a new C-RNTI and S-RNTI plus SRNC identity. In this case the UE configures layer 2 to use the new identities and returns an RNTI REALLOCATION COMPLETE message as confirmation. In the CELL UPDATE CONFIRM message, the network can instruct the UE to start updating its location on URA level. It may also contain new NAS system information.

The cell update procedure can also include the updating of which FAUSCH channel should be used in the new cell.

A GOVERNMENT OF THE PROPERTY OF THE

y el bus li Millèr d'in el reche. Communication de la communication de

In case the UE is assigned a new C-RNTI and/or S-RNTI plus SRNC identity, a RNTI REALLOCATION COMPLETE message is sent by the UE to the network.

[Notel: Whether it should be possible for the UTRAN to trigger a cell update request from the UE is FFS.]

#### 8.3.5.9 RNTI reallocation

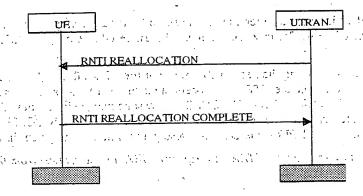


Figure 21) RNTI reallocation procedure

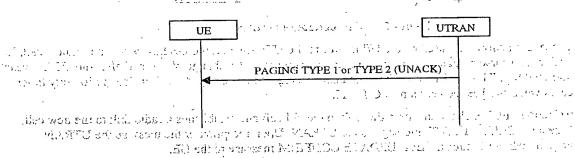
This procedure is used by the network, to assign new Radio Network Temporary Identity (RNTI) information to a UE. It is initiated by the UTRAN, which sends a RNTI REALLOCATION message. The RRC message contains new S-RNTI and SRNC identity, and/or a new C-RNTI. It may also contain new NAS system information.

The UE starts to use the new identities and returns an RNTI REALLOCATION COMPLETE message as confirmation.

William Thin was due

#### RRC Connected mode procedures which use Paging 8.3.6

#### Core network originated paging 8.3.6.1



HOLD THE MEN THE STATE OF STATES OF SERVICE WOOD STATES OF THE PROPERTY OF THE STATES Figure 22). Core network originated paging procedure in connected mode Colors of Color of Easter Africa and all property and the color of the

So far only one example of this procedure has been identified (two others are FFS):

- UTRAN co-ordinates, UE is on DCCH (PAGING TYPE 2 message is used)
- UTRAN co-ordinates, UE is on PCCH (FFS, PAGING TYPE 1 message would be used)
- UE co-ordinates (FFS)

Using Challege the

Consider case (a): This procedure enables the CN to request paging of a UE. Since the UE can be reached on the DCCH, the RRC layer formats a PAGING TYPE 2 message containing the UE paging identity and the NAS information, and the message is transmitted directly to the UE using unacknowledged data transfer.

[Note: It is FFS whether only one paging message is required (as used for idle mode paging) or whether both Type I and Type 2 paging messages are required]

#### UTRAN originated paging 8.3.6.2

Karing Color (National States of the States)

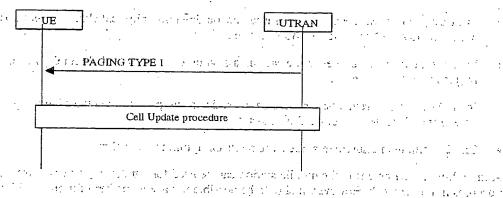


Figure 23) UTRAN originated paging procedure in connected mode

and the time residence to the factor of the 1990s make a the automorphism contact from a

in de finale de la compaña En la compaña do compaña de la compaña de

e Para la la Carecció de Compatible de la combinada de Accubación de Capital de Capital de Capital de Capital

The RRC layer in the network can use this procedure to trigger a switch from PCH or URA connected state to RACH/FACH or RACH/FACH state. A PAGING TYPE 1 message, containing the S-RNTI and SRNC identity is sent on the PCCH.

In the UE, the RRC layer continuously monitors the paging group on the PCH and compares the UE identities in the received paging messages with its own identities. When a match occurs, the RRC layer uses the cell update procedure to acknowledge the reception of paging and optionally obtain a new C-RNTI.

[Note: It is FFS whether only only one paging message is required (as used for idle mode paging) or whether Type I and Type 2 paging messages are also required]

### 8.3.7 Procedures related to measurement and monitoring

[Note: The following text needs to be reviewed at the next 3GPP WG2 meeting]

In idle mode, the UE monitors and measures neighboring cells according to information received on BCH.

After sending the initial random access message, the UE may continue measurements using the 'idle' mode parameters until a MEASUREMENT CONTROL message is received from the serving RNS. This message indicates the parameters to be used for monitoring in 'connected' state.

Monitored cells are grouped in the UE into three different categories:

1. Cells that belong to the active set. User information is sent from all these cells and they are simultaneously demodulated and coherently combined. These cells are involved in soft handover.

The first of the first and well the first

- 2. Cells that are identified as feasible for handover belong to the candidate set. The UE may request that a cell in its the candidate set is moved to the active set in a MEASUREMENT REPORT message.
- 3. Other cells that are known, but not currently feasible for handover, belong to the neighbour set. The UE does not notify the serving RNS when it moves a cell from the candidate set to the neighbour set or from the neighbour set to the candidate set.

From an RRC point of view, the mobile station measurements can be grouped with respect to the type of measurement performed in the mobile station, i.e., what and how the mobile station shall measure. Examples are:

• Radio link measurements: measurements on downlink radio links in the active set.

- Intra-frequency measurements: measurements on downlink physical channels that do not belong to the active set, but have the same frequency as the active set.
- Inter-frequency measurements: measurements on downlink physical channels with frequencies that differ from the frequency of the active set.
- Inter-system measurements: measurements on downlink physical channels belonging to another radio access system than WCDMA, e.g. PDC or GSM.
- Traffic volume measurements: measurements on uplink traffic volume.

A radio link measurement in the mobile station can be used for handover, power control or operation and maintenance purposes in the network. However, it should be possible to have a number of mobile station measurements running in parallel, where each measurement is controlled and reported independently of each other.

Each type of mobile station measurement is associated with a standardised measurement method that can be described with a limited number of parameters (threshold levels, triggering conditions etc.) in the measurement control message from the network.

The measurement control message to the mobile station can be sent using either acknowledged or unacknowledged data transfer (L2 LAC-C) on the DCCH. The acknowledged mode would be employed for critical control messages, e.g. inter-frequency measurements intended for handover. The unacknowledged mode may be used for less critical measurements, e.g. mobile station measurements intended for operation and maintenance purposes.

The measurement report to the network can likewise be sent by either acknowledged or unacknowledged data transfer on the DCCH. The acknowledged mode may be employed for e.g. event-triggered measurement reports, while the unacknowledged mode may be used for e.g. periodical reporting with small periodicity. The network can indicate (report in the mobile station measurement control message) which reporting alternative the mobile station should use for the corresponding measurement.

Elementary RRC procedures that are required for UE measurements, and UE measurement reporting to the UTRAN, are identified and described below. The procedures are used in connected mode.

#### 8.3.7.1 Measurement control

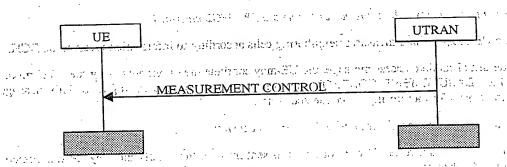


Figure 24) Measurement Control procedure

This procedure is initiated from the UTRAN side to control a measurement in a specific UE. The UTRAN sends a MEASUREMENT CONTROL message to the UE on the DCCH. The message includes the information that controls the UE measurement. Examples of such information are:

- 1. Measurement type: One of the types from a predefined list where each type describes what the UE shall measure.
- 2. Measurement identity number: A reference number that is used by the UTRAN at modification of the measurement and by the UE in the measurement report.
- 3. Measurement command: One out of three different measurement commands
  - Setup: Setup a new measurement.
  - Modify: Modify a previously specified measurement, e.g. change the reporting criteria.

- Release: Stop a measurement and clear all information in the UE that are related to that measurement.
- 4. Measurement objects: The objects the UE shall measure on, and corresponding object information.
- 5. Measurement quantity: The quantity the UE shall measure. This also includes the filtering of the measurements.
- Measurement reporting criteria: The triggering of the measurement report, e.g. periodical, event-triggered or immediate reporting. Here is also specified if the measurement report should be transmitted using either acknowledged or unacknowledged data transfer on the DCCH.

[Editor's note: Details of how this procedure can make use of slotted mode operation is still under investigation.

#### 8.3.7.2 Measurement reporting

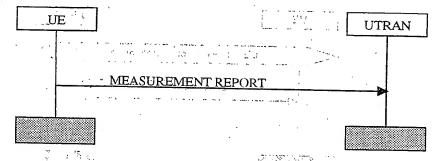


Figure 25) Measurement Report procedure

The Measurement Report procedure is initiated from the UE side when the reporting criteria are met. The message is sent using either acknowledged or unacknowledged data transfer on the DCCH. The UE sends a MEASUREMENT REPORT message to the UTRAN that includes the measurement identity and the measured values of the requested measurement objects.

en untre l'Arthorito A. Phieliphore, le le la Cadas automatembre, cett un le comme de la la committe de cadame selle

[Note: UE measurement reports can be sent without prior Measurement Control message, e.g. reports of measurements that are predefined in the standard or defined via system information.]

## 8.3.8 Other procedures in connected mode

## 8.3.8.1 Transmission of UE capability information வெள்ள நடிகளில் கொண்டிய அறைகளை

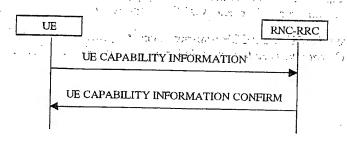


Figure 26) Procedure for transmission of UE capability information

The UE transfers its capability information to the network by transmitting the UE CAPABILITY INFORMATION message on the DCCH. UTRAN acknowledges the successful update of UE capability by UE CAPABILITY

INFORMATION CONFIRM message. This procedure can (optionally) be performed after RRC Connection Setup procedure and also during the lifetime of the RRC Connection if the UE capability information changes (e.g. due to change in UE power class). UE capability information can also explicitly be requested by UTRAN [Note: The mechanism for this is FFS].

and the state of the contract of the state of

## 8.3.8.2 Sending of system information in RRC connected mode

A CARACTER COMMITTEE OF THE STATE OF THE STA

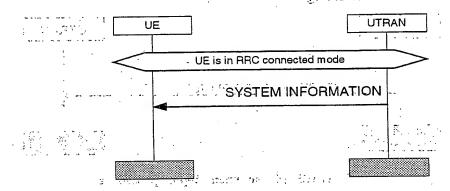


Figure 27) Sending of system information to UE in RRC connected mode

The UTRAN may send dedicated system information messages to the UE in RRC connected mode in order to update e.g. neighbouring cell and MM information. The UE RRC forwards received MM information to the UE MM sublayer.

The system information messages transmitted in connected mode include different combinations of parameters than system information messages for idle mode MSs. The grouping of of system information messages is FFS.

Three ways have been identified by which this signalling can be conveyed:

- On DCCH
- On BCCH [Editors note, the BCCH may be used to convey information to a UE even when a DCCH exists, and the current assumption is that where DCH exists BCCH is not used]
- On CCCH mapped onto a FACH or a ACCH transport channel (provided the ACCH transport channel exists). [Editors note, the CCCH may be used to convey information to a UE even when a DCCH exists].

#### 8.3.8.3 Direct transfer-

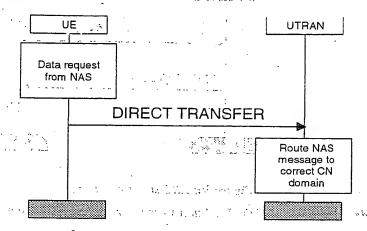


Figure 28) Direct Transfer procedure in uplink

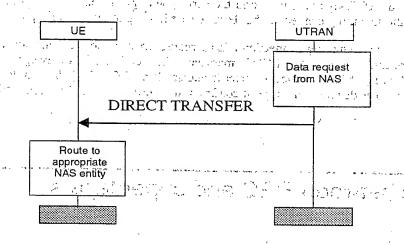


Figure 29) Direct Transfer procedure in downlink

The Ports and it was the common and promise of a convenient for the sales so the enterior

The direct transfer procedure is used to carry all higher layer (NAS) messages over the radio interface. The DIRECT TRANSFER message includes the higher layer (NAS) message as payload and a CN domain identifier of the destination (in uplink) or originating (in downlink) core network node.

The DIRECT TRANSFER message is used both in uplink and in downlink.

Upon reception of the DIRECT TRANSFER message the higher layer PDU is routed – using the CN domain identifier parameter – in UE side to correct higher layer entity and in UTRAN side to correct CN domain.

#### 8.3.8.4 RRC status procedure

والمراج فالإسا

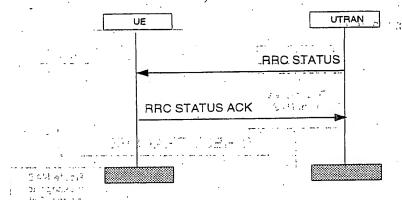


Figure 30: RRC status procedure

[Note: The following describes the use of the RRC status procedure for release of signalling connection. Other use of this procedure is FFS.]

If a UE has signalling connections to CN1 and CN2, one of the nodes may request the UTRAN to release the RRC connection. In this case the UTRAN needs to inform the corresponding MM entity in the UE – without releasing the RRC connection - that the signalling connection has been released, using the RRC status procedure.

When the UTRAN receives a signalling connection release request from a core network node, it informs the UE of a signalling connection release with a RRC STATUS message. After receiving this message the UE RRC informs the corresponding UE MM entity of RRC connection release and sends a RRC STATUS ACK to the UTRAN. When the UTRAN receives the acknowledgement message, it confirms the release of signalling connection to the core network node.

## 9 Primitives between RRC and upper layers

# 10 Message and information element functional definition and content

The function of each Radio Resource Control message together with message contents as a list of Information elements is defined in subclause 10.1.

Butter of the Contract of the

The functions of the Information elements are described in subclause 10.2.

Information elements are marked as either M- mandatory, O - Optional or C -conditional.

## 10.1 Radio Resource Control messages

## 10.1.1 RRC Connection Mobility Messages

#### 10.1.1.1 ACTIVE SET UPDATE

<Functional description of this message to be included here>

RLC-SAP: t.b.d.

Logical channel: DCCH

Direction: UTRAN → UE

Information	Information elements	REFERENCE	TYPE	NOTE	<u>। শৈংক্রাক্রের</u> নুন্ধ সংগ্রেক্ত
element				1.279 (62-62)	
- / .:	Message Type	:	М	1.12	sacration's This
	A/A			1.000 1.00	
UE information elements	Activation time		0		· ·
Phy CH information	Primary CCPCH info		M.	Note 1	For each radio
elements	Downlink DPCH info		М	1. 1.4 1.4	IIIIK to add.
· •	Primary CCPCH info		М	Note 1	For each radio
	SSDT indicator		0	-	Tillik to delete
			<u>                                     </u>		

Note 1: If it is assumed that primary CCPCH downlink scrambling code is allways allocated with sufficient reuse distances, primary CCPCH downlink scrambling code will be enough for designating the different radiolinks.

#### 10.1.1.2 ACTIVE SET UPDATE COMPLETE

<Functional description of this message to be included here>

-RLC-SAP: t.b.d.

Logical channel: DCCH

Direction: UE→UTRAN

		REFERENCE	TYPE	NOTE	
element category		nere and the end of the comment		Part of the second	;
	Message Type	and a military magazina	М		<del></del>
					,
Phy CH	SSDT indicator		0	** ****	
information elements	San Arthur Land				
				:	

#### 10.1.1.3 CELL UPDATE

This message is used by the UE to initiate a cell update procedure.

RLC-SAP: t.b.d.

Logical channel: t.b.d.

Direction: UE→UTRAN

Information	Information elements	REFERENCE	TYPE	NOTE
element category		F	11.19	
	Message Type ;		M	1.4 1.
UE information	S-RNTI		М	FFS whether in RRC or MAC
elements	SRNC identity		М	PDU.
The second of th	Cell update cause		М	
the commence of the control of the c				1.0
Measurement -	Measurement identity number		1	Intra-frequency measurement
information."	Measured results			related report (necessity is FFS)
elements			, ,	
		· ·		

encountry and the first of the property of the property of the contract of

## 10.1.1.4 CELL UPDATE CONFIRM

This message confirms the cell update procedure and can be used to reallocate new RNTL information for the UE valid in the new cell.

RLC-SAP: t.b.d.

Logical channel: t.b.d.

Direction: UTRAN→UE

Information	Information elements	REFERENCE	,	NOTE
element			(3.7)	PG hallest Carl Pi
category	Message Type		M .44	THE COUNTY OF STREET
	Micocago Typo			
UE information	S-RNTI		М	FFS whether in RRC or MAC.
	SRNC identity		М	PDU.
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	41 ;	· ·	1. T. G. 1927 (1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
	S-RNTI		0	New S-RNTI
	SRNC identity '	**************************************	0	New SRNC identity
	C-RNTI		0	New C-RNTI
	and the same of th	"	ļ	
UTRAN /	URA update indicator		0	When present, it instructs UE to make URA updating
information				
CN information	PLMN identity		0	(Note1,2)
elements	CN domain identity		0	For each CN domain (Note1,2)
	NAS system info		0	For each CN domain (Note1,2)
1				

[Note1: It depends on the length of these information whether this message can be used to notify these information to UE.]

[Note2: Necessity of PLMN is FFS and for CN domain identity and NAS system information, the confirmation in SA WG2 is needed.]

Product Committee Care

#### 10.1.1.5 HANDOVER COMMAND

RLC-SAP: t.b.d.

Logical channel: DCCH

Direction: UTRAN  $\rightarrow$  UE

Information element category	Information elements	REFERENCE	TYPE	NOTE	ag a 1860 No. 14
	Message Type		M		
Phy CH information	Frequency info		M	<del> </del>	· · · · · · · · · · · · · · · · · · ·
elements	UL DPCH power control info		M		
	UL DPCH info		M		Uplink radio
		- 43			resources
	UL timeslot info	. '	10		3 A.S. 4 A.
	Primary CCPCH info		M	For each radio	Downlink radio
	DL DPCH info		M	d .	Testurces
	DL timeslot info		0	Note 2	,
	SSDT indicator		0 ,	ত ক্রিক্টেন্সল,	TerritC:
		• •	<u> </u>		- 60 action
	1				2019010 h

Note1: The possibility to request the establishment of several radio links simultaneously with this message is FFS.

Note 2: It is assumed that the DL timeslot configuration is the same for all radio links, whether or not macro-diversity is supported for TDD.

Burgar Learnest Contraction &

St. Co. O. A. Contracted to A. Francisco English trees

Control of the Contro

#### 10.1.1.6 HANDOVER COMPLETE

RLC-SAP: t.b.d.

Logical channel: DCCH

Direction: UE  $\rightarrow$  UTRAN

Information element	Information elements 30000	REFERENCE 5	TYPE.	NOTE	N. 17 %	TERROR STATE
category		. `				
	Message Type		M			
Phy CH	SSDT indicator		0 .		<u> </u>	
information elements		•				
		Ve. 7. 11		1. 1.		

#### 10.1.1.7 INTER-SYSTEM HANDOVER COMMAND

This message is used for handover from UMTS to another system e.g. GSM. One or several messages from the other system can be included in the Inter-System message information element in this message. These messages are structured and coded according to that systems specification.

Logical channel: DCCH

	cal channel: DCCH ——————————————————————————————————				1. N. 1.	
	GUOII. OTRAIN>OE		1-121-6			
	and the second s				le .	
	Information elements	REFERENCE	TYPE.	NOTE	284.	
element category					*ca.	
TOTAL PROPERTY OF A	Message Type		M			•
UE information elements	Activation time		0			
	1241					
	Inter-System message		M	25-12-11-6	-	
information elements		1 -			- 497	

u nga tengant nahang tan 1. Ing kacamatan kanawerin na mininggan kanagan kanyatatan ng milit ti adi

## 10.1.1.8 INTER-SYSTEM HANDOVER FAILURE

A CONTRACT OF THE PROPERTY OF

This message is sent on the RRC connection used before the Inter-System Handover was executed. The message indicates that the UE has failed to seize the new channel in the other system.

RLC-SAP: t.b.d.

Logical channel: DCCH

Direction: UE→UTRAN

Information element category	Information elements	REFERENCE	TYPE	NOTE
	Message Type		M-	
	the second of the second of the second			and a second of the second of
UE	Inter-System handover failure cause-		0	FFS
information elements	en e	~		
Other	Inter-System message		0	
Information elements				771
	The state of the s			

#### 10.1.1.9 URA UPDATE

This message is used by the UE to initiate a URA update procedure.

RLC-SAP: t.b.d.

Logical channel: t.b.d.

Direction: UE→UTRAN

Information element category	Information elements	REFERENCE		NOTE	
	Message Type		М		
UE information elements :	S-RNTI		М	FFS whether in RRC or MAC	
	SRNC identity		М	PDU.	
	URA update cause		М	A service street	
			- T. T.	A STOTIC CARREST	

e had a self at server of

## 10.1.1.10 URA UPDATE CONFIRMADA CHERSE.

<functional description="" of="" th="" the<=""><th>nis message to be included here&gt;</th><th>This message confirms the</th><th>URA update</th></functional>	nis message to be included here>	This message confirms the	URA update
procedure and can be used to	reallocate new RNTI informatio	n for the UE valid after the	URA update.

RLC-SAP: t.b.d.

Logical channel: t.b.d.

Direction: UTRAN→UE

Information - element category	Information elements	REFERENCE	TYPE	NOTE:
	Message Type		M	
UE information elements	S-RNTI SRNC identity			FFS whether in RRC or MACPDU.
	S-RNTI SRNC identity		0	New S-RNTI New SRNC identity
	C-RNTI		0	New C-RNTI
CN information elements	PLMN identity CN domain identity		0	(Note1,2) For each CN domain (Note1,2)
Elettionics	NAS system info		0	For each CN domain (Note1,2)
		l.		1 to matify these information

[Note1: It depends on the length of these information whether this message can be used to notify these information to UE.]

[Note2: Necessity of PLMN is FFS and for CN domain identity and NAS system information, the confirmation in SA WG2 is needed.]

### 10.1.1.11 RNTI-REALLOCATION:

<functional description<="" th=""><th></th><th></th><th></th></functional>			
RLC-SAP: t.b.d.	, 41		 
Logical channel: t.b.d.			

Information	Information elements	REFERENCE	TYPE	NOTE
element				
category	Manager Time		М	
or the arms of	Message Type	<del>- </del>		
UE information	S-RNTI <sup>1</sup>		lo .	FFS whether in RRC or MAC
	SRNC identity		0	PDU.
			0 .	New S-RNTI
	S-RNTI SRNC identity		0	New SRNC identity
	C-RNTI		0 .	New C-RNTI
			0	(Note1,2)
CN information				For each CN domain (Note1,2)
elements	CN domain identity		0	
	NAS system info	·	0	For each CN domain (Note1,2

[Note1: It depends on the length of these information whether this message can be used to notify these information to UE.]

[Note2: Necessity of PLMN is FFS and for CN domain identity and NAS system information, the confirmation in SA WG2 is needed.]

or and Diner Cares

		REALLOC		

This message is used to confirm the new RNTI information for the UE.

RLC-SAP: t.b.d.

Logical channel: DCCH

Direction: UE→UTRAN مريس براي شاخ الجمع المادية والمتعادات

Information element category	Information elements	REFERENCE-	TYPE NOTE	1	
	Message Type	1 / / / /	M	·	
	a a market				
1.2 Measu	rement Messages	ings Vign	originalista Somakis, o	<u> </u>	

# 10.1.2.1 MEASUREMENT CONTROL

<Functional description of this message to be included here>

RLC-SAP: t.b.d. 

Logical channel: DCCH

Direction: UTRAN→UE

1.18mm - 17 - 27 1

The control of the co

and the second

nformation element	Information ele	ements	REFERENCE	TYPE	NOTE -
ategory	Maran Tuno		: 18 12	М	
	Message Type		<u> </u>	101	
leasurement	Mossurement le	lentity Number		М	/ i =
leasurement Information	ivieasurement ic	lettitty Northbot			
lements	Measurement C	Command		М	
GITIOTIC	Ivieasurement C	Ommana			
	Measurement T	vne		0	
	TWO AS A TOTAL OF T	<u> </u>			
	Measurement F	Reporting Mode		0	
•	Measurement	Intra-frequency cell		C .	If Measurement Type = Intra
	Object	inter-frequency cell	1501		frequency measurement :
٠, ,		Inter-frequency cell	T .	С	If Measurement Type = Inter
		into '			frequency measurement
		Inter-system cell	, h , mm , m , mm	C	If Measurement Type = Inter
marr at a Box		info			system measurement
		Traffic volume		C -	If Measurement Type = Traffic volume measurement
		measurement		'' ' '	vojume measurement
		object		C	If Measurement Type = Quality
		Quality measurement			measurement.
		object	1	1.35	
		TODJECT			
	Measurement	Intra-frequency		C:	If Measurement Type = Intra
	Quantity	measurement			frequency measurement
	(Note1)	quantity			
	( )	Inter-frequency		С	If Measurement Type = Inter.
		measurement	4.4040, 11. 1		frequency measurement
		quantity		<u> </u>	
		Inter-system		C	If Measurement Type = Inter
		measurement			system measurement
		quantity		c	If Measurement Type = Traffic
•		Traffic volume		,	volume measurement
		measurement			Volume measurement
		quantity Quality		c	If Measurement Type = Qualit
		measurement			measurement
•		quantity			1
		[quartity]		1	
	Report ing	Intra-frequency		0	If Measurement Type = Intra
	quantity	measurement			frequency measurement
	(Note2)	reporting quantity			
		Inter-frequency		0	If Measurement Type = Inter
		measurement	1	1	frequency measurement
		reporting quantity			If Management Trung Links
		Inter-system	1	0	If Measurement Type = Inter
		measurement			system measurement
	1	reporting quantity		0	If Measurement Type = Traffic
		Traffic volume measurement			volume measurement
		reporting quantity			
		Quality		0	If Measurement Type = Quali
	1	measurement		1	measurement
	-	reporting quantity			
•		1. op o mily			
	Measurement	Intra-frequency		С	If Measurement Type = Intra
	Reporting	measurement			frequency measurement
	Criteria	reporting criteria			
	(Note3)	Inter-frequency		С	If Measurement Type = Inter
	, ,	measurement			frequency measurement
	i	reporting criteria	1	1	1

CONTRACTOR ASSESSMENT

A FOREST TO LET BEEN

San Burgaran

ITTA E DIEK HALLEY

General State of the Control of the

ï		P				a contrata necessaria de la compansa de la contrata del contrata de la contrata de la contrata del contrata de la contrata del la contrata del la contrata de la contrata del la contrata del la contrata de la contrata de la contrata del la contrat
- 1		\ · *	Inter-system	F ,	C*4 - 1	If Measurement Type = Inter
			measurement			system measurement
-			reporting criteria			
			Traffic volume		С	If: Measurement: Type = Traffic
$\cdot$	10 to		measurement		7	volume measurement
			reporting criteria	11.	A 100	The print of the second
- 1	. P 47"		Quality	44.	Č	If Measurement Type = Quality
1	1 1 de	e version in	measurement	1		measurement
$\cdot$	in the in	# **	reporting criteria	10 51 1 5 5		
1	1.5	7 T V 14	Periodical reporting	i	C,	
	·		criteria		1/4	±
				ri jany i y		1.1

Note 1: Necessary only in event trigger reporting mode.

Note 2: It is FFS whether it is necessary to separate the reporting quantity for each type.

Note 3: Periodical reporting criteria is used only in periodical reporting mode and others are used in event trigger mode.

and the entering of the control of t

of the service of the first participation and a control of the control of the service of the ser

turr a Rapting and Novillement Messages

#### 10.1.2.2 MEASUREMENT REPORT

<Functional description of this message to be included here>

RLC-SAP: t.b.d.

Logical channel: DCCH

Direction: UE -> UTRAN

Information	Information elements	REFERENCE	TYPE	NOTE	-
	and the second	·	r de, i i r de,	-;	
	Message Type		M		
	* 8 ( 98) *		1 / s s 11	·	1
Measurement	Measurement Identity Number		M		For each
Information	(Control of the control of the contr			<u> </u>	meas.rep.
elements	Event Result Intra-frequency	/* # ***	C	Necessary only in	in this
	measurement ever	t		event trigger	message
	results			reporting mode	(Note 1)
	Inter-frequency.		C	(Note 2)	
	measurement ever				
	results				
	Inter-system		C	1.0	
	measurement ever	it _5676 _	· · ·	44 W 1 2 1 1 1 1 1 2 1	
	results		İ		I
	Traffic volume 1917	पुन्ता प्रदेश अर्थ । ३	C :	made of the state of	<b>-</b>
	measurement ever	nt	1		
2.77 5 5 10	results 10 10 10 10 10 10 10 10 10 10 10 10 10	min salarita, n	1		
	Quality measurem	ent	C		
	event results				
_			T		
	Measured Results		0	Necessary only	
			1:	when indicated	1/1/4
			1	optionally by	1.77
				Reporting Quantity	
,				in Measurement	
				Control	
		2.5 72.50			1

Note 1: If it is possible to send many measurement results that are identified by different measurement identity numbers in the same Measurement Report is FFS. An alternative solution is to admit only one measurement identity number per Measurement Report and concatenate different Measurement Reports in the RLC layer instead.

Note 2: If it is possible to send many measurement results that are identified by different events in the same Measurement Report is FFS.

# 10.1.3 Paging and Notification Messages

#### 10.1.3.1 NOTIFICATION

<Functional description of this message to be included here>

RLC-SAP: t.b.d.

Logical channel: PCCH

Direction: UTRAN  $\rightarrow$  UE

Information element category	Information elements	REFERENCE	TYPE	NOTE
	Message Type		М	
				<u> </u>

### 10.1.3.2 PAGING TYPE 1

This message is used to send information on the paging channel. One or several UEs, in idle or connected mode, can be paged in one message, which also can contain other information.

A TRANSPORT GLENNESS AND STOP A 1995

RLC-SAP: t.b.d.

Logical channel: PCCH

Direction: UTRAN  $\rightarrow$  UE

Information element Category	RRC Information element	REFERENCE	TYPE	NOTE
	Message Type		М	
	The state of the s		· · · · · / / / / / / / / / / / / / / /	τ,
UE Information elements	Paging record		M	One paging record for each UE to be paged.
Other information	DOOL I'S I'S I'S	<u>.</u>		
elements	BCCH modification info		10	FFS
			2	7 7 7 89 3 22

#### 10.1.3.3 PAGING TYPE 2

This message is used to page an UE in connected mode, when using the DCCH for CN originated paging.

The Bully France of Ministration

Bon Mars-Dark

RLC-SAP: t.b.d.

Logical channel: DCCH

Direction: UTRAN → UE

Information element Category	RRC Information element	REFERENCE	TYPE	NOTE: DAMES I
	Message Type		М ,	
UE Information elements	CN domain identity		М	· .
HARRY CO.	Paging cause	:	M	divinual de la compressión de
				8 ( A 7)
	<u> </u>		1.50	2. 2

# 10.1.4 RRC Connection Establishment and maintenance messages

#### 10.1.4.1 RRC CONNECTION RE-ESTABLISHMENT

<Functional description of this message to be included here>

RLC-SAP: t.b.d.

Logical channel: t.b.d.

Direction: UTRAN → UE

element	Information elements	REFERENCE	TYPE	NOTE
category	Message Type		M	200 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

10.1.4.2 RRC C	ONNECTION RE-ESTAB	BLISHMENT C	OMPLE	ETE	
	actional description of this messe			of a mercuration	
	SAP: t.b.d.				
Logi	cal channel: DCCH			war a reserve to	•
I was a second of the second o					
Information element category	Information elements	REFERENCE	TYPE	NOIE	
Category	Message Type		M	• • • • •	
					7.79

# 10.1.4:3 RRC CONNECTION RE-ESTABLISHMENT REQUEST

<Functional description of this message to be included here>

RLC-SAP: t.b.d.

•	Logical cha	nnel: t.b.	d T	241381 :	; +, <u>*</u> ;
	Direction:	$UE \rightarrow UI$	RAN		
		1	-4		

nformation	Information elements	REFERENCE	TYPE	NOTE:
element category	The second section of the second section of the second section			- in special An instead
category	Message Type		M	
UE information	S-RNTI		M	FFS whether conveyed on RRC
elements	SRNC identity		M .	or MAC.
	Measurement identity number		М	Refers to system For each information, measurement
information elements	1.04			Note 1 report
	Measured results		M	e e e e e e e e e e e e e e e e e e e

Note 1: The necessity and usage of Measurement identity number in this message is FFS.

## 10.1.4.4 RRC CONNECTION RELEASE.

RLC-SAP: t.b.d.

Logical channel: DCCH

Direction: UTRAN→UE

Information element	Information elements	REFERENCE	TYPE	NOTE
category				
	Message Type		М	
UE information Release cause elements  Number of Quick Repeat	Release cause	,	M	
	Number of Quick Repeat	·	M	
				,

# 10.1.4.5 RRC CONNECTION RELEASE COMPLETE

<Functional description of this message to be included here>

RLC-SAP: t.b.d.

Logical channel: DCCH

Direction: UE  $\rightarrow$  UTRAN

Information element category	Information elements	REFERENCE	TYPE	NOTE
	Message Type		М	

## 10.1.4.6 RRC CONNECTION REQUEST

RRC Connection Request is the first message transmitted by the UE when setting up an RRC Connection to the network.

RLC-SAP: t.b.d.

Logical channel: CCCH

Direction: UE → UTRAN

Information	Information elements	REFERENCE	TYPE	NOTE
element category			; - 1;	
	Message Type	, , , , , , , , , , , , , , , , , , , ,	M `	
UE information elements	Initial UE identity		M	FFS whether conveyed on RRC or MAC.
. •	Establishment cause		M	
	Initial UE capability		0	Necessity is FFS
Measurement information elements	Measurement identity number		M	Refers to system For each information. measurement Note 1 report
	Measured results		M	
				27

Note 1: The necessity and usage of Measurement identity number in this message is FFS.

#### 10.1.4.7 BBC CONNECTION SETUP

This message is used by the network to accept the establishment of an RRC connection for an UE, including assignment of signalling link information, transport channel information and optionally physical channel information.

RLC-SAP: t.b.d.

Logical channel: CCCH

Direction: UTRAN → UE

Information element	Information elements	REFERENCE	TYPE	NOTE
category			·	
	Message Type		M	
UE information elements	Initial UE identity		- M	FFS whether conveyed on RRC or MAC.
			<u> </u>	. + (.,
••	S-RNTI		. M	
	SRNC identity		М	
	C-RNTI	<u>.l</u>	1	Only if assigned to a common transport channel
	Activation time		0	
D	<u></u>		<u> </u>	and the second s
RAB	RAB identity		M	Indicates the signalling link
information elements		of a say and a say a say as		
elements.	Signalling link type		M	
	Dan III		1	
	RAB multiplexing info		M	For the signalling link
TrCH	TFCS		0	Uplink TFCS
information				
elements	TFCS		0	Downlink TFCS
	TFC subset		0	
	وروا المراجع والمراجع	Notes of the K	1 m 2	43. 43. 4 . 4 . 3
,	Transport channel identity		M	For each new Uplink
	TFS		M·	transport transport
,		·	<del> </del>	channel channels
	Transport channel identity	<del> </del>	N 4	[
	TFS		M ·	For each new Downlink transport
	110		IVI	channel channels
			1	Charmers
PhyCH	Frequency info		0	
information	Treduction into	<del>                                     </del>	1	· · · · · · · · · · · · · · · · · · ·
elements	Uplink DPCH power control info	7	0.55	- Paul III service - National Ger
			<del>                                     </del>	eisment
	Uplink DPCH info	i,	0	Maximum one Uplink radio
	PRACH info		0	of these : esources
. ~	Uplink.timeslot info		0	
1 00 mariner ( mage)	The state of the s	3		LINE OF MA
*	Primary CCPCH info.		0	For each radio Downlink radio
	Downlink DPCH info 1		.0	link resources
,	Secondary CCPCH info		0	
	Downlink timeslot info		0	Note 1
				3 7 7 7 1 1 1 1 2 1 2 1 2 1 2
	SSDT indicator		0	Necessity is FFS
	0-1-17	<del> </del>	ļ	
	Gated Transmission Control info	<del> </del>	10	FFS
			<del> </del>	
, , , , , , , , , , , , , , , , , , , ,		1	1	

Note 1: It is assumed that the DL timeslot configuration is the same for all radio links, whether or not macro-diversity is supported for TDD.

## 10.1.4.8 RRC CONNECTION REJECT

This message is transmitted by the network when the requested RRC connection cannot be accepted. RLC-SAP: t.b.d.

Logical channel: CCCH

Direction: UTRAN → UE

Information elèment	Information elements	REFERENCE	TYPE	NOTE
category				
	Message Type		M	
1	a state of the second stat			*****
UE information elements	Initial UE-identity	Pho 1 10 1 10001 PM		FFS whether conveyed on RRC or MAC
	and the second s	and distance to the contract of		
	Rejection cause		M	
	Waittime		0 ::::::	The second secon
			J	

# 10.1.4.9 RRC STATUS

This message is transmitted by the network when the network requests UE to release one of several signalling connections.

RLC-SAP: t.b.d.

Logical channel: DCCH

Direction:  $UTRAN \rightarrow UE$ 

Information	Information elements	REFERENC	E TYPE	NOTE	
element					
category	610 019000 Shill (0)			1.7	
817	Message Type		M	7 23 2 2 31	*: <u>*</u> ***
	) "1	(	, 4/4	761 7 7 1 7 3 1	• •
CN information	CN domain identity		M		•
elements			6.3	Control of the second	10
. 501 (6.75.7	THE TANK AND THE PROPERTY OF THE PARTY OF TH	*************	1.5	N. 7	

# 10.1.4.10 RRC STATUS ACK

This message is transmitted by UE as an acknowledgement for RRC STATUS message.

117 . 17 1. 9 . 24

RLC-SAP: t.b.d.

Logical channel: DCCH

Direction: UE → UTRAN

Information element	Information elements	REFERENCE	TYPE NOTE
category		the state of the s	
	Message Type		M .
<u></u>	g to the second of the second	.17 . 1 . 6	at a large and a second
		•	·

## 10.1.5 Radio Access Bearer control messages

#### 10.1.5.1 PHYSICAL CHANNEL RECONFIGURATION

This message is used by UTRAN to assign, replace or release a set of physical channels used by a UE.

RLC-SAP: t.b.d.

Logical channel: DCCH

Direction: UTRAN → UE

Information element category	Information elements	REFERENCE	TYPE	NOTE		
			М	* 7 1		
UE Information			0		. 7 .7.	
elements	C-RNTI		Ō	Only RACH/FA	CH,	
UTRAN mobility Information elements	URA update indicator		0	When PCH shall be used, and when present, it instructs the UE to make URA updating		
PhyCH information	Uplink DPCH power control info		0			
elements	Frequency info		0			
	Uplink DPCH info PRACH info Uplink time slot info		0 0	Maximum one of these	Uplink radio resources	
	Primary CCPCH info Downlink DPCH info Secondary CCPCH info Secondary CCPCH info Downlink timeslot info SSDT indicator		0 0 0	For each radio link For FACH For PCH Note 1	Downlink radio resources	
	Gated Transmission Control info		0	Necessity is FF	<u> </u>	

Note 1: It is assumed that the DL timeslot configuration is the same for all radio links, whether or not macro-diversity is supported for TDD.

10.1.5.2.PHYSICAL.			

This message is sent from the UE when a physical channel reconfiguration has been done.

RLC-SAP: t.b.d.

Logical channel: DCCH

Direction: UE → UTRAN

Information element category	Information elements	REFER	ENGE TYPE	NOTE
paydon to	Message Type		M .	
Phy CH information elements	SSDT indicator		0	Necessity is FFS

Tibliant-Till

## 10.1.5.3 RADIO ACCESS BEARER RECONFIGURATION

	1.		CO-C This
This message is sent from UTRAN to procedure can also change the multiple	econfigure paramexing of MAC, re-	configure transport channe	ls and physical
channels.	1		
RLC-SAP: t.b.d.			i di garan da sanaran br>Sanaran da sanaran da s
Logical channel: DCCH	1		
Direction: UTRAN → UE			
And the second s	:	goriandina e dia di	***
The state of the s		man man and an analysis are to be an all attends with the properties of the con-	40.00
manuscriptures and it is employed the consist of the second of the consistency is not consistent to the consistency of the cons	1	Chronic North	: · · · ·

19 (NOS2 )

nformation	Information elements	REFERENCE	TYPE	NOTE	֥
element ategory	<u></u>	127.00			
	Manager Transfer of the second			1	
	Message Type		M	2 2 1 7 2	
IE Information					
lements	Activation time		0		
ionients .	C-RNTI			Only RACH/FA	CH
740	Sec. 1997 C		18 1 1		
RAB '	RAB identity		М	(2)	For each RA
nformation elements	RLC info		0 .	FFS	affected by the
nements	RAB multiplexing info		M	·	message
	and the second				1.
rCH	TFCS		0	for uplink DCHs	31
nformation			12.20		: 27
lements	TFCS	man is the affected them to the second		for downlink DC	
					10.0
·	TFC subset			for DCHs in upl	ink
	10 mars				
. ;	Transport channel identity		0	For each	Uplink
					transport
	-				channels
				channel	
	Transport channel identity			For each	
e e tal		-		reconfigured or	
	TFS	**   · · · · · · · · · · · · · · · · · ·	0	added	•
	The second secon	need needed and a state of the sale of the		transport	
	the state of the s	to the second second second second		channel	
	Dynamic Control			For each	•
1				reconfigured or	0.
	Transmission time validity	**	0 :: -	added	
•	The second secon	- Januar (1924), Ali A		transport	
	the statement will be used to the terminate of the statement of the statement of			channel	
	المارات المارسيان والماسينية المتعادية المارات			controlled by	
1	•	•		DRAC	
			1	1	
	est'. La diables of terrologic is				
	•			Tabler gr	range of the
` .				-	
}					
	•			İ	
İ	THE PROPERTY	dayonas ed	التهجيرا		general control
į	the second secon		er i mari	an and Thair to be of the	grifficher en en en en en en en en en en en en en
	come imposes that the House state of	The special of			\$. ».
	The same of the sa	10 1184 1 21 1		ar in Harrier	. 11
-				1 -	
l				a don bi	***
					· *
				A with fire	1
	<i>2</i>			******	
	•	·	-1		140
				·	•
			1	Į	
				ſ	
1			ĺ		
			.		
]					
			-		
			1		
				ļ	

		· · · · · · · · · · · · · · · · · · ·	0	Land to the	
	Time duration before retry -	<del></del>	6		
	Silent period duration before release		$\vdash$		
			<del>  </del>	For each:	Downlink
	Transport channel identity	ممد بساد د		removed	
•				removeu_	channels
			·	transport	Chamileis
			<u> </u>		
	Tranpsort channel identity		0	For each	ومن مسا
يوهم بدو د دود د د د رو د د د مو د د د	TFS		0	reconfigured or	
4	The second secon			added	J. N. 1977
1 1. 27% 51 3 . After 5 5			1 1 1 2	transport	2. (4)
	The same of the sa			channel "	L
	and the second second	1 2 marie 21 1 10 1 2 1 10 10 10 10 10 10 10 10 10 10 10 10 1			, ,
077517	Uplink DPCH power control info		0.		
hýCH	Uplink DECH power control line		•	*** * * * * * * * * * * * * * * * * *	
formation			O		
lements	Frequency info		1		
	B 4.4		10	Maximum one	Uplink radio
	Uplink DPCH info			of these	resources
and a second of the second of			1	Of these	1
	PRACH info		10		<del> </del>
٠, ٠٠٠٠٠	Uplink timeslot info		0		
7: 1	. at {gi 1				15 11 11
	Primary GCPCH info			For each radio	Downlink radi
-	Downlink DPCH info	1	0	link	resources
	Secondary CCPCH info		0	3.1	
•	Secondary Coronnio	<u> </u>	0	Note 1	· -
	Downlink timeslot info	1 7 1			
•	and the second of the second o		0	Necessity is F	FS · · · ·
	SSDT indicator		-	113555551.7 10 1	1 -
	THE PARTY OF THE P		- 6	FFS	
	Gated Transmission Control info	<u> </u>	0	ILLO.	
	w con I				
		:			4.

Note 1: It is assumed that the DL timeslot configuration is the same for all radio links, whether or not macrodiversity is supported for TDD.

# 10.1.5.4 RADIO ACCESS BEARER RECONFIGURATION COMPLETE

This message is sent from the UE when a RAB and signalling link reconfiguration has been done.

RLC-SAP: t.b.d.

Logical channel: DCCH

Direction: UE → UTRAN

Information element	Information elements	REFERENCE	TYPE	NOTE: A SECOND OF
category		ł		
***	Message Type		М	10 10 10 10 10 10 10 10 10 10 10 10 10 1
RAB	RAB identity		NA	
information		· · · · · · · · · · · · · · · · · · ·	М	For each reconfigured RAB
elements				and the second s
TrCH information	Transport channel identity		0	For each removed,
elements		The transfer of table .		reconfigured or added transpor
D1 011	4111			
Phy CH information	SSDT indicator		0	Necessity is FFS
elements		*	*** * ***** **	
				The same of the sa

# 10.1.5.5 RADIO ACCESS BEARER RELEASE

<Functional description of this message to be included here>

RLC-SÄP: t.b.d.

Ambar Million and secure

Tercentigores Transcores. Secured

Logical channel: DCCH

Direction:  $UTRAN \rightarrow UE$ 

Information element	Information elements 300.00	REFERENCE ?	TYPE	NOTE : 15 1	Milliand Thirty
category	-			:	
	Message Type		M		
UE Information	Activation:time		Q		
elements	C-RNTI		0	Only RACH/FA	CH 'I'-
RAB			M	For each releas	ed RAB
information				·	545 77
elements	RAB identity			For each other this message	
	RAB multiplexing info		0		
TrCH	TFCS		·O ··	for uplink DCHs	
information					
elements	TFCS		0	for downlink DC	Hs
*	TEC subset		0.	for DCHa in	nk
	TFC subset	<u> </u>	JO:	for DCHs in upl	IIIK
·	Transport channel identity		0	For each	Uplink
				removed	transport
	to be the second	$r \neq r = 1$	3.30	transport	channels
	Transport channel identity		0	channel For each	
,	TFS		0	reconfigured or	
				added (FFS)	
8				transport	
			<u> </u>	channel	· · · · · · · · · · · · · · · · · · ·
	Dynamic Control Transmission time validity		0	For each reconfigured or	•
	Time duration before retry		0	added (FFS)	
	Silent period duration before release		0	transport	٠.
				channel,	·
	•			controlled by DRAC	
				Bino	
	Transport channel identity		0	For each	Downlink
				removed	transport
		:	1	transport	channels
	Transport channel identity		0	channel For each	,
	TFS		6	reconfigured or	
			1	added	
	*			transport	
				channel	1
PhyCH	Uplink DPCH power control info		0		
information			<u> </u>		
elements	Frequency info		0		
	United DDOLLints			NA	(1 t . t t
	Uplink DPCH info PRACH info		0	Maximum one of these	Uplink radio resources
	Uplink timeslot info		0	O these	i esources
	·		Ť		
	Primary CCPCH info		0	For each radio	Downlink radio
	Downlink DPCH info	-	0	link	resources
	Secondary CCPCH info		0		
	Downlink timeslot info		0	Note 1	l
			<u> </u>		
		L	1	<u> </u>	

Note 1: It is assumed that the DL timeslot configuration is the same for all radio links, whether or not macrodiversity is supported for TDD.

## 10.1.5.6 RADIO ACCESS BEARER RELEASE COMPLETE

<Functional description of this message to be included here>

RLC-SAP: t.b.d.

Logical channel: DCCH

Direction: UE  $\rightarrow$  UTRAN

Information	Information elements	REFERENCE	TYPE	NOTE
category			,	
	Message Type		M	
·				33.
RAB	RAB identity		M	For each released RAB
information ·			1.15	1.04.77 1.4
TrCH information	Transport channel identity		0	For each removed, reconfigured or added transpor
elements			100000 19	channel
	145vc 9 5	1	<u> </u>	
	3.0 € €			

#### 10.1.5.7 RADIO ACCESS BEARER SETUP

- <Functional description of this message to be included here>

RLC-SAP: t.b.d.

Logical channel: DCCH

Direction: UTRAN → UE

nformation element category	Information elements	REFERENCE		NOTE	
	Message Type		M		
CN information elements	NAS binding info		M	Transparent non a stratum info e.g. bidentity.	pearer
		7 7 2 2 3 7			
JE Information	Activation time		0	- 1 - D : 01 - 15 (A O)	1
elements	C-RNTI		0	Only RACH/FACH	
RAB	RAB identity		М	For the new RAB	
information	RLC info	·	M	in the same of	*
elements	RAB multiplexing info		M		
			<del> </del>	For each other R	AP offeeted by
	RAB identity		10	this message	AD allected b
	RAB multiplexing info		0	inis message	
TrCH	TFCS	:	0 · ·	for uplink DCHs	
information elements	TFCS		0_	for downlink DCH	ls ····
1					
	TFC subset		0	for DCHs in uplin	ik
			0	For each	Jplink :
	Transport channel identity		10		ransport -
	and the second of the second o		,:. :	transport	channels
Balling and Ma	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	- 1	0	channel For each	2
	Transport channel identity		10	reconfigured or	· pri
	TFS		9	added	ۇرىقە مەسىسىدىد. د
	the contract of the second of the second of			transport	•••
•		_		channel	•
	Dynamic Control		0	For each	44
	Transmission time validity			reconfigured or	
•	Time duration before retry		0	added transport	
	Silent period duration before relea	se	0	channel,	
	we was a drive	u more egy el e y			* :
	The tax is a second of the tax is a second of the tax is a second of the tax is a second of tax is a second			DRAC	
				1.32	
	Transport channel identity		0		Downlink
1	, tansport anamer a	•	:-:	1,0,1,10,00	transport
			4,1	transport	channels
				channel	
·	Transport channel identity		0	For each reconfigured or	
	TFS		ا	added	
			.	transport	
1				channel	
PhyCH	Uplink DPCH power control info	<u> </u>	.  0_		······································
information	·		0		
elements	Frequency info		_		
	Natial DDCI into		-10-	Maximum one	Uplink radio
	Uplink DPCH info		6	of these	resources
	PRACH info Uplink timeslot info		0		1
			_	Г	Douglisters
1	Primary CCPCH info		<u>                                      </u>	For each radio	Downlink ra
	Downlink DPCH info		0	link	resources
	Secondary CCPCH info		0	Note 1	4
ı	Downlink timeslot info		10	INOIG I	
		Ì	Į	1	1

2007	1.00 E	1.90	
SSDT indicator	:	0	Necessity is FFS
Gated Transmission Control info	· · · · · · · · · · · · · · · · · · ·	0	FES

Note 1: It is assumed that the DL timeslot configuration is the same for all radio links, whether or not macrodiversity is supported for TDD.

# 10.1.5.8 RADIO ACCESS BEARER SETUP COMPLETE

RLC-SAP: t.b.d. -

Logical channel: DCCH

Logical channel: DCCH

Direction: UE  $\rightarrow$  UTRAN

Information	Information elements	REFERENCE	TYPE	NOTE
element	1.0 7 7 7		11:	
category	23.00 p. 12.00	1		The second of th
	Message Type		М	
<u> </u>	11.			
RAB	RAB identity		M	For each new RAB
information elements			147 - 5	
TrCH nformation	Transport channel identity		Ö	For each removed,
elements	and the second s		ļ <i></i>	reconfigured or added transport
				channel
Phy CH	SSDT indicator		0 7	Necessity is FFS
nformation			The Thirty I was at the ser-	
	pro		-, ; , -, :	17.15 (7.15) (1.15) (1.15)
	The state of the s		25 ( 8)	The state of the s

This message is used by UTRAN to configure the transport channel of a UE, This also includes a possible reconfiguration of physical channels. The message can also be used to assign a TFC subset and reconfigure physical channel.

RLC-SAP: t.b.d.

Logical channel: DCCH

Direction: UTRAN → UE

niormation	Hilotitidion are the	REFERENCE			:
lement	[ [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [			Maria Laboration	
ategory			1417	15 15 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
	Message Type	7 0 0 1W	M		
	<b>A</b>				<u> </u>
E Information	Activation time		0	TACLUE AC	711
lamonts:	C DNTI	•	0 .	Only RACH/FAC	<u> </u>
Hetricino,	Control-only-state-timer		0	FFS	7.1
* ) :	5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 11 11 11 11 11 11		2 12 2 1 1 2 1	
	TFCS		0 -	for uplink DCHs	
rCH nformation	Tros				
ntormation elements	TFCS		0	for downlink DC	Hs .
nements	TFC5			<u> </u>	
	TFC subset	1 1 21 1 22 3	0.	for DCHs in upl	ink 📖 💮
_	TFC subset				
- '	1:1	13 11.25	.0	For each	Uplink
	Transport channel identity	1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1	0	reconfigured	transport
•	TFS			transport	channels
			1	channel	
,			0	For each	
	Dynamic Control		10	reconfigured	
•	Transmission time validity	<del></del>	ō	transport	177
	Time duration before retry		10	channel,	
	Silent period duration before releas	e	1	controlled by	
				DRAC	
للشائي المساوسين	THE STATE OF THE STATE OF	81, 21, 1 <sub>3</sub>		A 0.00	
	Transport channel identity		0	For each	Downlink
	Transport channel identity		0	reconfigured	transport
	TFS		[	transport	
	and the second of the second o			channel	
1,	Uplink DPCH power control info		0		18 T. T.
PhyCH	Uplink DPCH power control line				16.2 1.75
information			. 0	ta i fu i t	*
elements	Frequency info				, ,
3.5 (15.7) (3.1)			0	Maximum one	Uplink radio
	Uplink DPCH info		0	of these	resources
	PRACH info		0	1.0	
	Uplink times of into	<u> </u>			
				For each radi	o. Downlink radi
	Primary CCPCHLinfo			link	resources
	Downlink DPCH info			HILLS	
	Secondary CCPCH info		0	Note 1	
	Downlink timeslot info		_  0_	Note 1	
1					
1	SSDT indicator			Necessity is	rr3
	0001	·			
	Gated Transmission Control info		. 0	FFS	<u> </u>
		4.2		·	·/- 14 ··
3 2 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1		er	: . ,		10.

57

Note 1: It is assumed that the DL timeslot configuration is the same for all radio links, whether or not macro-diversity is supported for TDD.

# 10.1.5.10 TRANSPORT CHANNEL RECONFIGURATION COMPLETE

This message is sent from the UE when a transport channel reconfiguration has been done.

RLC-SAP: t.b.d.

Logical channel: DCCH

Direction: UE → UTRAN

Information element	Information elements	REFERENCE.	TYPE	NOTE
category · · ·	the state of the s			
	Message Type		M	
TrCH information elements	Transport channel identity			For each reconfigured transpor
Phy CH nformation	SSDT indicator		0	Necessity is FFS
lements				

Note: The usage of this message for indicating the cell the UE will select in the DCH->RACH/FACH case, is FFS.

#### 10.1.5.11 TRANSPORT FORMAT COMBINATION CONTROL

<Functional description of this message to be included here>

RLC-SAP: t.b.d.

Logical channel: DCCH

Direction: UTRAN→UE

Information element	Information elements	REFERENCE	TYPE	NOTE	
category					
	Message Type			10 Mag. 17	
	- The stage Type		M	A Prince of the	crima arion
TrCH	TFC subset		84	/ 50/	niver so le
nformation				for DCHs in UL	
elements	the same of the sa		FF 1105	20 755bilder ?	
	Appropriate to the second seco			7	

# 10.1.6 System Information Messages

## 10.1.6.1 SYSTEM INFORMATION

<Functional description of this message to be included here>

RLC-SAP: t.b.d.

Logical channel: BCCH or DCCH or CCCH

Direction: UTRAN  $\rightarrow$  UE

NOTE: The division of the system information into messages is FFS.

Information	Information elements	REFERENCE	TVPF	NOTE
i .	Information elements	"HEFERENCE"		10.00
element		:		1
category	-	•		
	Message Type	and a second	M	
CN information	PLMN Identity — — — — — — — — — — — — — — — — — — —			
elements	CN domain identity		M	
	NAS system information		M	Network
	,			Domain.
				Information '
	ا معند با ها معادد داران معادد معادد معادد المعادد المعادد المعادد المعادد المعادد المعادد المعادد المعادد المعادد			included for at
	·			least one core
				network
18 80 W. A. S.	The Daniel of Carlot Harat Da	II 24 <u>1 91 24</u>		domain type.
·				
UTRAN	URA identity	,	М	For each URA
mobility	Information for periodic cell and		М	Note: not for
information	URA update	S 1981	· .	each URA any
elements			٠. ١	more
	Cell identity	and the second	. м	The necessity and usage of
	3.0 A 3.1. C.			cell identity is FFS.
1	Cell selection and re-selection info		М	
UE	Uplink access control info	· · · · · · · · · · · · · · · · · · ·	М	Militar Project Ball
information				
	Transmission probability		0	For all UE For each class
elements	Maximum bit rate	·	0	having DCH of UE
	IVIAANITION DICTATO		_	controlled by Note2
-	•		1	DRAC
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	n 1 51471	procedure -
				7 11
PhyCH	Frequency info		0	For each RACH
information	PRACH info		M	sing at 1 and
l .	11010111110		7.	
elements	Frequency info		0	For each FACH on secondary
	Secondary CCPCH info		M	CCPCH
1	·		IVI	
and the second second second to the second s	Francisco			For each PCH on secondary
	Frequency info			CCPCH
1.	Secondary CCPCH info		M	OUT OIT
	PRACH power control info		M	
	•	1	1	i

	Measurement Identity Number		Νί	Note 1	For each Intra-
Information					frequency "
elements	Intra-frequency cell info		M ·	For each	measurement
				measurement	control
· · · · · · · · · · · · · · · · · · ·		a		object	!: <u>-</u> .
	- type for the same				
	Intra-frequency measurement		M		
	quantity				St. 3
	Intra-frequency measurement	1 - 2 - 1 - 2	M	S.C. S	<u>.                                    </u>
	reperting criteria			Rath Lite	<u></u>
				17 7 5 16 2 7 1.	1.
	Measurement Identity Number		- M -	Note 1	For each Inter-
		all care a market of the			frequency
	Inter-frequency cell info		М	For each	measurement
				measurement	control
* Y4 1.6		263 4 24 (2.1)	1	object "	i district
	·				
	Inter-frequency measurement quantity		М		
,					
	Inter-frequency measurement reporting criteria	OT METERS	M		
•	Management I dontite Nivelan		М	Note 1	For each Inter-
	Measurement Identity Number		101		
		7 A. A. A. A.			system
	Inter-system cell info		M	For each	measurement
		,		measurement	Control
				object	
	<u></u>		19	13 1 1 1 1 1 1	J. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
	Inter-system measurement		M		
	quantity			10 e 33, 3 %	$\hat{L} = \{\hat{x}^{\dagger}\}$
					.
	Inter-system measurement		M		
	reporting criteria.		<u> </u>		
	A STATE OF THE PARTY OF THE PAR		<u> </u>	The figure of	14 (A. 1977)
La. L.	<u> </u>		L	1	j de sub

Note 1: The necessity and usage of Measurement identity number in this message is FFS.

Note 2: The split of parameters into several System Information message X is FFS.

# 10.1.7 Other Messages

## 10.1.7.1 UE CAPABILITY INFORMATION

<Functional description of this message to be included here>

RLC-SAP: t.b.d.

Logical channel: DCCH

Direction: UE  $\rightarrow$  UTRAN

Information "	information elements	REFERENCE	TYPE	NOTÉ	77,71,812,3
element category			4		1,12,91
	Message Type		М		
:					
UE information	Power control capability		М		
elements	Code resource capability	, , , , , , , , , , , , , , , , , , , ,	M	77.7	:
	UE-mode capability.	,	M		
	Transport-CH support capability		0		
i	Ciphering capability	*	M		
	Macro diversity capability	• 10	M		

Note: The WG1 and WG4 discussion should be concluded before the contents of this message can be finalized

#### 10.1.7.2 UE CAPABILITY INFORMATION CONFIRM

Enactional description of this message to be included here>

REC-SAP: t.b.d.s

ALBERT BELLER

Logical channel: DCCH

Direction: UTRAN → UE

nformation	Information elements	REFERENCE	TYPE	NOTE	
lement			1		
ategory					
	Message Type		M		
	atti, sumbat in this as at some FES	in i thropaidh	17.		
					mages .

#### 10.1.7.3 DIRECT TRANSFER

<Functional description of this message to be included here> ...

RLC-SAP: t.b.d.

Logical channel: DCCH

Direction: both

Information element category	Information elements	REFERENCE	TYPE	NOTE
	Message Type	•.	M	
CN information elements	CN domain identity		M	mita of the second
	NAS message		M <sup>2</sup>	

Communication of Control of Contr

# 10.2 Information element functional definitions

## 10.2.1 CN Information elements

#### 10.2.1.1 CN domain identity

Points out the core network domain (e.g. IP or PSTN/ISDN CN domain).

#### 10.2.1.2 NAS binding info

A field with non-access stratum information to bind a RAB to the non-access stratum. This information is transparent to RRC.

#### 10.2.1.3 NAS message

A non-access stratum message to be transferred transparently through UTRAN.

## 10.2.1.4 NAS system information

System information that belongs to the non-access stratum (e.g. LAC, RA code etc). This information is transparent to RRC.

#### 10.2.1.5 PLMN identity

Parameters	REFERENCE	TYPE	NOTE
MCC, Mobile Country Code		М	
MNC, Mobile Network Code		М	

## 10.2.2 UTRAN mobility Information elements

#### 10.2.2.1 Cell identity

Identity of a cell within a PLMN.

Note: The necessity and usage of this information element is FFS.

#### 10.2.2.2 Cell selection and re-selection info

Parameters	REFERENCE	TYPE	NOTE	
Standby allowed reception level (dBm)		M	the par nee	ameters eds rification
Standby prohibited reception level (dBm)		М		
Threshold for Cell Re-selection (dB)		M		
Allowed reception SIR (dB)		M		
Radio link timeout		<u> </u>	<u>                                     </u>	

one and from the period of the sec-

64

10.2.2.3 Information for periodic cell and URA update

···FFS.

10.2.2.4 URA identity

Identity of the UTRAN Registration Area.

10.2.2.5 URA update indicator

When present in a message, it instructs the UE to start to update its location on URA level.

10.2.3 UE Information elements

10.2.3.1 Uplink access control info

Parameters	REFERENCE	TYPE	NOTE
Access class		M	FFS
Dynamic persistence level		M	FFS

10.2.3.2 C-RNTI

The controlling RNC RNTI identifies an UE having a RRC connection within an controlling RNC. Constitution of the controlling RNC.

10.2.3.3 S-RNTI

The serving RNC RNTI is allocated to an UE having a RRC connection and identifies the UE within its serving RNC.

10.2.3.4 SRNC identity

Identifies the serving RNC for an UE having an RRC connection.

10.2.3.5 Initial UE identity

This information element identifies the UE at a request of an RRC connection.

Parameters	REFERENCE	TYPE	
	· ·	31	
	<del> </del>	<del> </del>	

TMSI + LAI	0	Temporary Mobile Subscriber Identity and	One of these NAS-identities is used	· <u>-</u>
P-TMSI + RAI	0	Packet Temporary Mobile Subscriber Identity and Routing Area Identity		
IMEI	0	International Mobile Subscriber Identity	L	

[Note: The use of these identities is pending confirmation from WGI that the RACH can support the required payload when these types of ID are used]

### 10.2.3.6 Activation time

Activation Time defines the frame number (or offset to some known frame number) in which the operation/changes caused by the related message should be executed.

Current assumption is that a connection based CFN (Connection Frame Number) that is known by MS and SRNC could be used.

#### 10.2.3.7 Wait time

Wait time defines the time period the UE has to wait before repeating the rejected procedure.

## 10.2.3.8 Control-only-state timer

This IE indicates for how long the UE shall stay in the control-only-state. Editors note: the exact usage of this IE needs some clarification.

# 10.2.3.9 Paging record

Parameters	REFERENCE	TYPE			
Paging originator		M	UTRAN/CN		· ·
Paging cause		С	For CN originated pages	<u> </u>	<u> </u>
CN domain identity					·
		-	International Mobile Subscriber Identity	One of these	For idle
IMSI		0		formats is	mode pages
TMSI		. 0	Temporary Mobile Subscriber Identity	<u>"</u>	
P-TMSI	<del>                                      </del>	0	Packet Temporary Mobile Subscriber Identity		<u></u>
S-RNTI	<u> </u>	0	For connected mode pages	<u> </u>	<del> </del>
SRNC identity		7	·		·

er in the Cartina to the following of the

Salls : Head of date tallas

## 10.2.3.10 Establishment cause

Cause for an RRC connection establishment request (originating call, emergency call, paging response, location update request, forward inter-system handover etc).

# 10.2.3.11 Release cause

Cause for release of RRC connection.

# 10.2.3.12 Rejection cause

Cause for rejection of RRC connection establishment request.

## 10.2.3.13 Paging cause

Cause for a CN originated page. Editors note: The usage of this IE needs further clarification.

## 10.2.3.14 Initial UE capability

This is the UE capability information given in the RRC connection request message. The exact type of information is FFS.

## 10.2.3.15 Power control capability

Parameters				RE	FERE	VCE	TYF	PΕ	NOTE		3	1.75	3 2 7	7 3
Transmission	power cap	ability					М							
	** * *		·							<u> </u>				
			1 14 .	9.	A1 1	- 1 100	19- 2			- 11			<del></del>	

Note: The WG1 and WG4 discussion should be concluded before the contents of this IE can be finalized.

## 10.2.3.16 Code resource capability

Parameters	REFERENCE	TYPE NOTE
DL multi-code capability		TILLINGIE
UL multi-code capability		
DL Spreading factor capability		
UL Spreading factor capability		

Note: The WG1 and WG4 discussion should be concluded before the contents of this IE can be finalized.

## 10.2.3.17 UE mode capability

REFERENCE	TYPE	NOTE	:			•	,
	T	1.1012					
	1						
		·					
•	7.	<del> </del>	· -	<del></del>			<del></del>
	<del>                                     </del>	<del> </del>					<del></del>
	<del> </del>	<b>———</b>					
	REFERENCE	REFERENCE TYPE	REFERENCE TYPE NOTE	REFERENCE TYPE NOTE	REFERENCE TYPE NOTE	REFERENCE TYPE NOTE	REFERENCE TYPE NOTE

Note: The WG1 and WG4 discussion should be concluded before the contents of this IE can be finalized.

## 10.2.3.18 Transport channel support capability

Parameters	REFERENCE	TYPE NO	TE	
Maximum number of DCHs				
Support for Transport CH			1	

Control of the second of the s

Note: The WG1 and WG4 discussion should be concluded before the contents of this IE can be finalized.

## 10.2.3.19 Ciphering capability

Parameters	Ţ÷,	REFERENCE	TYPE	NOTE			, V	·
Ciphering Algorithm capability			М					
					•	•		

Note: The WG1 and WG4 discussion should be concluded before the contents of this IE can be finalized.

## 10.2.3.20 Macro diversity capability

Parameters	REFERENCE	TYPE	NOTE
Maximum number of RLs		M	
the same of the sa			312 4112 411

Note: The WG1 and WG4 discussion should be concluded before the contents of this IE can be finalized.

## 

Indicates the cause for s cell upo	late. Examples of ca	uses are cell reselecti	on and periodic	cell update.
ا مستند مستند به در این این استان این استان این استان این استان این استان این استان این استان این استان این اس ا	The second secon	And the same of the same		
A STATE OF THE STA				<u> Albania (</u>
33 may 1 may		A 100.00 A 1 100.00 A 100.00 A 10 A 10 A	فالمناسبين المتعددات	
10.2.3.22 URA update c	ause			
والشابسي يستناها الا				

Indicates the cause for s URA update. Examples of causes are change of URA and periodic URA update.

## 10.2.3.23 Number of Quick Repeat

Indicates the number of quick repeat for RRC Connection Release Complete message.

10.2.3.24 Inter-system handover failure cause

The purpose of this IE is to provide a reason for the failure of the Inter-system handover.

10.2.3.25 Transmission probability

Indicates the probability for a mobile to be allowed to transmit on a DCH controlled by DRAC procedure.

10.2.3.26 Maximum bit rate

Indicates the maximum user bit rate allowed on a DCH controlled by DRAC procedure for the transmission period (Transmission time validity).

The fall of the Contract which is broad to the first of t

The Mark Committee and the Seattle of the Mark Committee and the committee of the committee of the Committee

and a stanger of the office of the order of the second of the enterior of the property of the second of the first of

The control of the control of the field and the control of the con

Communication of the second

## 10.2.4 Radio Access Bearer Information elements

10.2.4.1 RAB identity

An identification number for the RAB affected by a certain message.

10.2.4.2 RLC info

Parameters	REFERENCE	TYPE	NOTE	Inlink BLC
RLC mode		M	IBAR should use Acknowledged, Non- I	info
		· ; ,       ;	Acknowledged or Transparent mode data transfer. [Note: It is FFS if this parameter always is the same in both lill and DL 1	
RLC in-sequence delivery	·	0	Indication if RLC should preserve the order of higher layer PDUs that were transmitted through RLC. [Note: It is FFS if this parameter always is the	
Section of the Allendary	in a manager ,		same in both UL and DL.] Size of RLC Protocol Data Units. See	7.2 (7.2)
RLC PDU size	·	С	Note 1	
RLC transmission window size		0	A flow control parameter used to set the maximum number of RLC PDUs, sent without getting them acknowledged	
RLC retransmission info	way a strain	M	This could be the number of attempts to retransmit a RLC PDU before it is discarded, or different timer values.	limb
		М		Downlink RLC info
RLC mode RLC in-sequence delivery		0		-
RLC PDU Size		М	Note 1	-
RLC transmission window size		0	1. 11. 11. 11. for	-
RLC retransmission info		0	Is this needed to send to the UE for downlink?	<u> </u>

Notel: RLC PDU size may be derived from transport block size and not explicitly transferred across the radio interface.

# 10.2.4.3 Signalling link type

The purpose of the Signalling Link Type information element is to indicate the RLC parameters needed for the signalling link.

Each possible value of Signalling Link Type information element refers to a predefined set of parameters. Details FFS.

# 10.2.4.4 RAB multiplexing info

A multiplexing option for each possible transport channel this RAB can be multiplexed on.

Characteristics of the decimal of the

a decide Same of the same grown

of the angrey F

Parameters	REFERENCE	TYPE	NOTE		
Transport channel identity		0		. 1 4	,
·	·		This is the ID of a transport	Uplink-	For
		1	channel that this RAB could be	multi-	each
ogical channel identity		0	mapped onto.	plexing	multi-
•		10 .	This parameter is used to	1 1/	plexin
			distinguish logical channels		option
<del></del>			multiplexed by MAC on a	1	
AC logical channel priority	<b> </b>	<del> </del>	transport channel.		l
		0	This includes both priority,	1	
		ł	between different users traffic	1 . 1	
		ļ	when using a common or	1	
		1	shared channel, and between		
The term of the	The second second		different RABs (or logical		
			channels) traffic for a certain	٠ نا	- 32 f
			user Different D		
	1		user. Different priorities for		
			one users' RABs are mapped	1	
			(through the MAC's T and		٠.,
			C/T MUXes) to the TFC		* w
			selection algorithm.	-	
The second of the second of the second			[Note: Lloage and ]		
· · · · · · · · · · · · · · · · · · ·	13.5 5 45 5 4	· · · · · · ·	[Note: Usage and precise	1 pt 1 pt 1	1.13
ansport channel identity		0	meaning of this is FFS.]		
gical channel identity		$\frac{6}{6}$		Downlink	
·		·		multi-	
				olexing	

enemia, a mer a fank dukta melir dia oli Note: The necessity of dividing RAB multiplexing into in uplink and downlink is FFS.

# the top of the sould probe to make the terminal matter of more to 10.2.5 Transport CH Information elements

# 10.2.5.1 Transport Format Combination Set

Indicates the allowed combinations of already defined Transport formats.

# 10.2.5.2 Transport Format Combination Subset

Indicates which Transport format combinations in the already, defined Transport format combination set that are

# 10.2.5.3 Transport channel identity

This information element is used to distinguish transport channels (both common and dedicated transport channels).

# 10.2.5.4 Transport Format Set (TFS)

Parameters	REFERENCE	TYPE	NOTE
Transport block size(s)			
Transport Block Set Size(s)		-	(dynamic)
Transmission time interval			(dynamic)
Type of about time interval			(semi-static)
Type of channel coding			
		İ	(semi-static)
Rate matching		<del> </del>	
, and the second		1	(semi-static)

10.2.5.5 Dynamic C	+1
1117 6 6 I N/N9MIC C.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
nazaa bynanic C	OHILIOI

Indicates if this transport channel is controlled by DRAC procedure or not.

ing wind april a ward of call of

die State voor in Australie van die State Ontwick voor in Australie van Australie van die State Norder voor in Australie van Australie van Australie van Australie van Australie van Australie van Australie v

SECTION OF THE

# 10.2.5.6 Transmission time validity

Indicates the duration for which permission is granted on a DCH controlled by DRAC procedure.

# 10.2.5.7 Time duration before retry

Indicates the time duration before retrying to get the transmission permission on a DCH controlled by DRAC procedure, in case permission has not been granted.

#### 10.2.5.8 Silent period duration before release

Indicates the maximum silent period duration before releasing the resource. This parameter may be merged with the Fkp-b parameter defined in the 'Transmission stop and resumption control' procedure defined in [1].

医肝囊切除性病 网络美国新维尔 化二氯酚 计数据 网络克兰斯马克

medical deposit from the contact of the

feachd nothers miss some of the fired. I.e.

(Note: [1] RAN/WG1 S1.14 document)

# 10.2.6 Physical OH Information elements and the content of the con

#### 10.2.6.1 Frequency info

Parameters	REFERENCE	TYPE	NOTE
Frequency number		М .	Designate the centerfrequency of the uplink carrier
Duplex distance	·	0	
Chip rate		0	
Mode		0	Designate FDD or TDD mode

tropposite, polymer is exceptionally be computatively all actions in a control of the control of

## 10.2.6.2 Primary CCPCHainfo.

Parameters 1100 No. 100  REFERENCE	TYPE	NOTE	
DL scrambling code		Μ .	DL scrambling code used for
	·		Primary CCPCH

## 10.2.6.3 Secondary CCPCH info

Parameters	REFERENCE	TYPE	NOTE
DL scrambling code			Only needed if different from DL scrambling code of Primary
	1.5	7 - 25 - 1	CCPCH I I I I I I I I I I I I I I I I I I I
Channelization code		М	
	[	1	

#### 10.2.6.4.PRACH info

Parameters	REFERENCE	TYPE	NOTE
Access slot	k.,	M	For each allowed access slot for the preambles
Preamble spreading code	. :	M · · · ·	For each code to use for spreading of the preamble. There is also a one to one mapping from preamble code to what scrambling code to use for the message part.
Preamble signature		M	For each allowed preamble signature.
Spreading factor		M	For each rate or SF that are allowed to use on the data part (I <sup>1</sup> / <sub>2</sub> branch) in the message part of the random-access

## 10.2.6.5 PRACH power control info

Parameters	REFERENCE	TYPE	NOTE
UL target SIR		.M	The usage of these parameters
Primary CCPCH DL TX power			needs clarification and are also
UL Interference		Μ	dependent on the WG1 RACH
Constant value		М	discussions.

## 10.2.6.6 Uplink DPCH info

Parameters	REFERENCE	TYPE "	NOTE
UL scrambling code		1	What short or long uplink scrambling code a certain UE should use

DPCCH channelization code -		SF of the channelization code for control part. [The necessity of this parameter is FFS.]	
DPDCH channelization code		SF of the channelization code for data part	For each DPDCH

# 10.2.6.7 Uplink DPCH power control info

Interference level measured for a frequency at the UTRAN access point used by UE to set DPCH initial output power.

#### 10.2.6.8 Downlink DPCH info

Parameters	REFERENCE		NOTE	
DL scrambling code	100		Only needed if differscrambling code of CCPCH	rent from DL Primary
DL channelization code	\.		Official formation.	For each DPCH

#### 10.2.6.9 Uplink timeslot info

Parameters.	REFERENCE	TYPE	NOTE	
Slot number ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (		1111	Timeslot to be used in uplink (TDD only)	For each slot

### 10.2.6.10 Downlink timeslot info

Parameters	REFERENCE	TYPE	NOTE	
Slot number	6 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M	Timeslot to be	For each slot
			used in	
25 613 1 4 100 E 1 10 d 2 1 40 C		1	downlink (TDD	
HADLE HOLDEN TO THE TOUR	a facility of the same		only)	

of all former review of

#### 10.2.6.11 SSDT indicator

This information element indicates the status (e.g. initiated/terminated) of the Site Selection

Diversity Transmit power control (SSDT). In the direction UTRAN to UE it is used to change the SSDT status. In the direction UE to UTRAN it is used to confirm the SSDT status by the UE.

# 10.2.6.12 Gated Transmission Control info (FFS)

Parameters	REFERENCE	TYPE	NOTE .
Gating pattern		M	Indicates periodical or random (FFS)
Gating rate		M .	Indicates no gating, 1/2 gating, 1/4 gating or 1/8 gating (FFS)
Gating activation time		М	FFS
	: !	.3 : •	A DEPOSIT OF A MEDICAL CONTRACT

# 10.2.7 Measurement Information elements

#### 10.2.7.1 Measurement Identity Number

A reference number that is used by the UTRAN at modification and release of the measurement, and by the UE in the measurement report.

the North Constitution of the Market State of the State of

Taggin's trial Ellight a work and come a

TO MY PORPLETED DE SELECT

and a finished the second of t

#### 10.2.7.2 Measurement Command

One out of three different measurement commands

- Setup: Setup a new measurement. The transfer terms at a contraction of the property of the second section of the second
- Modify: Modify a previously specified measurement, e.g. change the reporting criteria.
- Release: Stop a measurement and clear all information in the UE that are related to that measurement.

### 10.2.7.3 Measurement Type

One of the types from a predefined list where each type describes what the UE shall measure. The types are:

- Intra-frequency measurements
- Inter-frequency measurements
- Inter-system measurements
- Traffic volume measurements
- Quality measurements

#### 10.2.7.4 Reference time difference to cell

The reference time difference to cell indicates the time difference between the primary CCPCH of the current cell and the primary CCPCH of a neighbouring cell. It is notified to UE by System Information or Measurement Control message.

In case of macro-diversity the reference is the primary CCPCH of one the cells used in the active set.

Editors note: Exactly how the reference cell is pointed out in this case in the messages is FFS.

#### 10.2.7.5 Measured time difference to cell

The measured time difference to cell indicates the time difference which is measured by UE between the primary CCPCH of the current cell and the primary CCPCH of a neighbouring cell. It is notified to SRNC by Measurement Report message or Measurement Information Element in other RRC messages.

In case of macro-diversity the reference is the primary CCPCH of one the cells used in the active set.

Editors note: Exactly how the reference cell is pointed out in this case in the messages is FFS.

# 10.2.7.6 Measurement reporting mode

Contains the type of Measurement Report transfer mode and the indication of periodical/event trigger.

$\psi \mapsto c \psi \cdot \psi $	pales quality	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	appears to the second of the second
Parameters	REFERENCE	TYPE	
Measurement Report Transfer Mode			Acknowledged / Unacknowledged
Periodical Reporting / Event Trigger Reporting Mode		М	Periodical reporting / Event trigger

Without the month of the first

## 10.2.7.7 Intra-frequency cell info

Contains the measurement object information for an intra-frequency measurement.

Parameters	REFERENCE	TVPE	NOTE
Primary CCPCH-info		M	NOTE
Primary CCPCH DL TX power		0	
	.,	0	FFS
Reference time difference to cell		0	

#### 10.2.7.8 Inter-frequency cell info

Contains the measurement object information for an inter-frequency measurement.

Parameters	REFERENCE	TYPE	NOTE
Frequency info		M	
Primary CCPCH info	fire jaken in	M	~ ~
Primary CCPCH DL TX power		0	FFS
UL load	the State Country	0	FFS
Reference time difference to cell		0	FFS

# 10.2.7.9 Inter-system cell info

Contains the measurement object information for an inter-system measurement.

Parameters	TYPE	NOTE	
System type	М	E.g. GSM	
System specific measurement info		E.g frequency, timeslot, colour code, output nower	
The company of the second of a pro-		1-1-01 octput power.	

# 10.2.7.10 Traffic volume measurement object

Contains the measurement object information for a traffic volume measurement.

1. W. C. C. C. C. C. C. C. C. C. C. C. C. C.			" ""
Parameters	REFERENCE	TYPE NOT	E
Target Transport CH ID	THE THE THE		<u> </u>
	L	IVI	

THE SECURE CARRETT STUDY SELECT A

# 10.2.7.11 Quality measurement object (FFS)

(Note: Only the section is made.)

# 10.2.7.12 Intra-frequency measurement quantity

The quantity the UE shall measure in case of intra-frequency measurement. It also includes the filtering of the measurements.

Parameters	REFERENCE	TYPE	NOTE	3.20
Primary CCPCH RX E./Io		0		One of these is
Primary CCPCH RX SIR (RSCP/ISCP)		0	FFS.	mandatory
Primary CCPCH RX power (RSCP)		0	FFS	<u> </u>
Path loss		0	FFS	1 10 3 10 10
Path loss plus UL load		0	FFS	

(Note: Above measurements except for Ec/lo are not concluded in WG1)

# 10.2.7.13 Inter-frequency measurement quantity (FFS)

The quantity the UE shall measure in case of inter-frequency measurement. It also includes the filtering of the measurements.

Parameters	REFERENCE	TYPE	NOTE	
EJIo		0.		One of these is
DL Path loss	-1 ·	0	FFS	mandatory -
SIR		0	FFS	
DL path loss plus UL interference		0	FFS	
Received signal code power (RSCP)	Tarket Milit	0	FFS	

# 10.2.7.14 Inter-system measurement quantity (FFS)

The quantity the UE shall measure in case of inter-system measurement. It also includes the filtering of the measurements.

Parameters	REFERENCE		NOTE	
E/Io	re-cikani nomino di kito	Q : 10		One of these is
Signal strength	·	0		mandatory
Path loss		0	FFS	
Colour code		M.	GSM only	

## 10.2.7.15 Traffic volume measurement quantity

Contains the measurement quantity information for a traffic volume measurement.

Parameters	REFERENCE	TYPE	NOTE
RLC buffer payload		М	

(Note: If there is no other measurement quantity, this parameter can be removed since it can be implicitly known by UE.)

10.2.7.16 Quality measurement quantity (FF	atity (FES	quantity	measurement	Quality	. 10	2.7.	10.
--	------------	----------	-------------	---------	------	------	-----

(Note: Only the section is made.)

10.2.7.17 Intra-frequency reporting quantity

Contains the reporting quantity information for an intra-frequency measurement.

			in the second of
Parameters	REFERENCE	TYPE	NOTE
Primary CCPCH RX E <sub>0</sub> /I <sub>0</sub>		0	
Primary CCPCH RX SIR (RSCP/ISCP)		0	FFS
Primary CCPCH RX power (RSCP)		0	FFS
Path loss		0	FFS
Path loss plus UL load		0	EES - 3
Measured time difference to cell	, .	0	
DL Transport CH BLER		0	
DL Transport CH BER	-	0	FFS
UE Transmission Power		0	
UE Position		0	
Cell ID		0	FFS

Control to the second of the control of the second of the

(Note: It is FFS whether the reporting quantity parameters used in different measurement types can be used commonly for all types of reporting quantity. If they can, only "Reporting Quantity" is enough instead of specifying 5 types of reporting quantity.)

ாட்டி நடித்த நடித்த நடித்த கண்ணர் கண்ணுள்ளா<mark>னர் மார் முற்ற இவர்</mark> சும்மு செற்று நடித்த நடித்த நடித்த சடித்த சடித்த

which is a market and the control of

The state of the modern of the contract of the state of t

Halada Timong ordina kola ona objedno ar any.

Conversion about a great when were

10.2.7.18 Inter-frequency reporting quantity (FFS)

(Note: Only the section is made.)

10.2.7.19 Inter-system reporting-quantity (FFS)----

(Note: Only the section is made.)

### 10.2.7.20 Traffic volume reporting quantity

Contains the reporting quantity information for a traffic volume measurement.

Parameters	REFERENCE	TYPE	NOTE
RLC buffer payload for each RAB		0	
DL Transport CH BLER		0	
DL Transport CH BER	,	. 0 .	FFS -
UE Transmission Power		0	
UE Position		0	
Cell ID		0	FFS

(Natas It in EES whether the reporting of	quantity parameters used in different measu	rement types can be used commonly
(NOLE: It is FF3 whether the reporting of	y can, only "Reporting Quantity" is enough	instead of specifying 5 types of
for all types of reporting quantity. In this	y can, only riepoining addition in an annual	
reporting quantity.		The state of the s

10.2.7.21 Quality rep	orting quantity (FES)
-----------------------	-----------------------

(Note: Only the section is made.)

# 10.2.7.22 Intra-frequency measurement reporting criteria

The triggering of the event-triggered reporting for an intra-frequency measurement. All events concerning intra-frequency measurements are labeled 1x where x is a, b, c....

Event 1a: A Primary CCPCH enters the Reporting Range [Note1]

Event 1b: A Primary CCPCH leaves the Reporting Range [Note2]

Event 1c: A Non-active Primary CCPCH becomes better than an active Primary CCPCH [Note3]

Event 1d: Change of best cell [Note4, 5]

Event 1e: Other types of ranking of Primary CCPCHs (FFS)

Parameters		REFERENCE	TYPE	NOTE
Common parameter for all events	Max number of reporting cells		M	
For each event	Event II)		M	la, lb, lc, ld or lè

-	Reporting Range	)	. ::	C:	In event-la'lb
·.	Hysteresis		·	С	In event lc.1d
	Time to trigger	128 4	, f ' ,-'j.	М ;	Indicates the period of time between the timing of event
	**************************************			Marings 4	detection and the timing of sending Measurement Report.
	Amount of reporting				Measurement for the indicated Transport CH ID is "released" after the indicated amount of
	- 12 TO MARKET WAS ASSESSED.				reporting from the UE itself.
					FFS 300
	Reporting interval		Maria Maria Nasa Jawaga	: 1	Indicates the interval of periodical report during the event is in the detected state
			·	<u>.</u>	FFS
1.1					

[Note1: whether or not PCCPCH can be active is FFS]

[Note2: whether or not PCCPCH can be non-active is FFS]

[Note3: Details are FFS: It has been suggested to divide this event into two cases; I) a non-active PCCPCH exceeds the weakest active PCCPCH, II) a non-active PCCPCH exceeds the strongest active PCCPCH]

[Note4: When best PCCPCH in active set changes, all active cells are reported.]

[Note5: Whether this event can result in the reporting of non-active cells in addition to active cells is FFS:]

# 10.2.7.23 Inter-frequency measurement reporting criteria (FFS)

The triggering of the measurement report, e.g. periodical, event-triggered or immediate reporting for an interfrequency measurement. Here is also specified if the measurement report should be transmitted using either acknowledged or unacknowledged data transfer on the DCCH.

1	Parameters	REFERENCE	TYPE	NOTE		
. إ	_3455		٠. ٦.,	11,11	LAND A STORAGE E	nes at 1

# 10.2.7.24 Inter-system measurement reporting criteria (FFS)

The triggering of the measurement report, e.g. periodical, event-triggered or immediate reporting for an inter-system measurement. Here is also specified if the measurement report should be transmitted using either acknowledged or unacknowledged data transfer on the DCCH.

មិនស្ថិតស្ថិតស្ថិត ស្រុក ស្រុក ស្រុក ស្រុក ស្រុក ស្រុក ប្រជាព

High continues in death of the region

#### 10.2.7.25 Traffic volume measurement reporting criteria

Contains the measurement reporting criteria information for a traffic volume measurement.

Parameters		REFERENCE.		NOTE
Common parameter			. :	* * * * <u>*</u>
for all transport CH				:
Harris III (1904)	n and which has			·
For each	Transport CH ID	,	М	
transport-CH			M	
. 10	Time to trigger		M.	Indicates the period of time
90 J. 75 M				between the timing of event
·	1964 D. L. D. H.			detection and the timing of
				sending Measurement Report
	Amount of reporting		M	Measurement for the indicated
				Transport CH ID is "released"
·		İ		after the indicated amount of
***			+ ~	reporting from the UE itself.
	·			5770
·				FFS
	Reporting interval		M	Indicates the interval of periodic
1.05		14 196 95 F. Call 16.		report during the event is in the detected state
,-1, \	1.00 to 1.00 to 1.7%	and abort the area		detected state
·	gr. 103 11	sale on the la	100	FFS TO TO S
	L			

## 10.2.7.26 Quality measurement reporting criteria (FFS)

(Note: Only the section is made.)

#### 10.2.7.27 Periodical reporting criteria

Contains the periodical reporting criteria information. It is necessary only in the periodical reporting mode.

Parameters	.:		REFERENCE	TYPE	NOTE
	Max number of reporting cells	** ,* : *			Indicates the maximum number of cells to report.
		1:			. A second of the plant

Light and the grade of the stat

The stratted protection areas were a personal content of the conte

	5 114	
Amount of reporting		Measurement is "released" after the indicated amount of reporting from the UE itself
Reporting interval	0	Indicates the interval of periodical report.

#### 10.2.7.28 Intra-frequency measurement event results

This IE contains the measurement event results that are reported to UTRAN for intra-frequency measurements.

Parameters	REFERENCE	TYPE	NOTE
Event ID.		M	
Primary CCPCH info		Μ	

#### 10.2.7.29 Inter-frequency measurement event results (FFS)

This IE contains the measurement event results that are reported to UTRAN for inter-frequency measurements.

The further division of this IE into parameters is FFS.

# 10.2.7.30 Inter-system measurement event results (FFS)

This IE contains the measurement event results that are reported to UTRAN for inter-system measurements.

The further division of this IE into parameters is FFS.

# 10.2.7.31 Traffic volume measurement event results and the desire and the desired and the desi

Contains the event result for a traffic volume measurement.

Parameters	REFERENCE	TYPE NOTE	
Transport CH ID	1	M	
total desiration and the second of the secon			

,	*******			. /
	110.	measurement	avant racul	*^ ( )
もれら フロロ	/ ハロつしけい/	mascuramani	even resu	15 1550
10// 10/	CJUMINV.	THE ASULCINOL		
10.2			••	

(Note: Only the section is made.)

#### 10.2.7.33 Measured results

Contains the measured results of the quantity indicated optionally by Reporting Quantity in Measurement Control. "Measured results" can be used for both event trigger mode and periodical reporting mode.

Parameters	REFERENCE	TYPE	NOTE
RAB ID		0	
+ RLC buffers payload		1	
PCCPCH Info		0	
+ Primary CCPCH RX E./Io			
PCCPCH Info	1 88 1 846 F	0	FFS to 1 3 5 4 1 1 1 1
+ Primary CCPCH RX SIR		1	
(RSCP/ISCP)			
PCCPCH Info		0	FFS
+ Primarý CCPCH RX power (RSCP)	Physical Company	off. 1/1	1 194 45 5 5 5 5 6 5
PCCPCH Info	1	1()	FFS
+ Path loss	1		
PCCPCH Info		0	FFS
+ Path loss plus UL load		<u> </u>	
PCCPCH Info		0	
+ Measured time difference to cell	******* <u>*</u>	<del> </del>	The state of the s
DL Transport CH BLER		0	
DL Transport CH BER		0	FFS
UE Transmission Power: G. Jan.	has havinger, in our	0 11	
UE Position	N - 22 22 23 24 2 3 4 1 4 1 2 2 2	0	
Cell ID	. 3		FES of Control in Middle of the state of
Cell ID	<del> </del>	<del>                                     </del>	

# 10.2.8 Other Information elements (1984)

#### 10.2.8.1 BCCH modification info

Indicates modification of the System Information on BCCH.

القائم فالموطنية ولاساء والمواجد اليها والواجد			
Parameters	REFERENCE .	TYPE	NOTE
BCCH modification type		М	FFS
Modification time		0	FFS

#### 10.2.8.2 Inter-system message

This Information Element contains one or several messages that are structured and coded-according to the specification used for the system type indicated by the first parameter.

Parameters	REFERENCE	TYPE	NOTE
System type		М	E.g. GSM
Message(s)		М	Formatted and coded
			according to specification for
<u> </u>			the indicated system type;

# 11 Message and Information element abstract syntax (with ASN.1)

THE bearaseasotra available

This chapter contains definitions for RRC PDUs and IEs using a subset of ASN.1 as specified in I2.01. PDU and IE definitions are grouped into separate ASN.1 modules:

Note that the proposal is to keep both chapter 10 and 11 (at least until all messages and information elements are fully discussed and agreed by 3GPP RAN WG2). Chapter 10 is intended to give an abstract description (in English) of the messages and information elements whereas chapter 11 should contain the exact normative definitions with all necessary details.

Existing in a country to the ex-

John British Carlot and All Comments

# 12 Message transfer syntax

Transfer syntax for RRC PDUs is derived from their abstract syntax definitions by use of encoding

## 13 Protocol states

Service state diagram(s) of the RRC sublayer. (E.g. like in GSM0407.)

# 14 Protocol timers, counters and other parameters

Description of timers and counters and possible other parameters related to RRC procedures.

# 15 Specific functions (if applicable)

management of the common and the control of the con

< description of chapter scope and contents >

 $\xi = \chi + (\kappa_1 + \kappa_2 + \kappa_3 + \kappa_4 + \kappa$ 

# 16 Handling of unknown, unforeseen and erroneous protocol data

This section specifies procedures for the handling of unknown, unforeseen, and erroneous protocol data by the receiving entity. These procedures are called "error handling procedures".

## 17 SDL

This section describes the functionality of the protocol in descriptive SDL.

# 18 Appendices: Examples of operation

# 19 History

Document history				
Date	.Version	Comment		
January 1999	0.0.1	Created following the first 3GPP WG2 meeting. Text- from two documents were merged. These documents were:		
•		ETSI SMG2 UMTS L23 EG document: 'Description of the RRC protocol, YY.31, v0.2.0, ETSI L23EG Tdoc 065/99, January 19, 1999.		
		and		
		TTC/ARIB document: 'Draft UE-UTRAN L3 RRC signalling protocol', Vol. 9, Ver 1.0.0, January 14, 1999, ETSI L23 EG Tdoc 010/99		
	·	The ETSI document was taken as the baseline document and change marks are given in v 0.0.1 of S2.31 with respect to the ETSI document.		
March 1999	0.0.2	Updated according to 3GPP template. There were no changes to S2.31 agreed at the January 1999 meeting		
April 1999	0.1.0	Updated to include new message and information element functional descriptions as described in TSGR2#3(99)220 (report of RRC email ad-hoc). New chapter headings 10-17 have been added and Annex 1 removed. Text updated to reflect new definitions for paging messages.		
April 1999	TS 25.331	Noted by TSG-RAN as TS 25.331V1.0.0		
	V1.0.0			
May 1999	V1.0.1	Tables in Section 10 edited so that they read correctly when opened from WORD 6.0		
June 1999	V1.1.0	Edited following May 1999 RAN2meeting. Includes modifications to RRC procedures agreed in RRC procedures email ad-hoc (and mostly captured in Tdoc 376). Note that new procedures on RNTI re-allocation and RRC status added. Also includes a large number of modifications to RRC parameters and information elements most of which were captured in Tdoc 380. Updated to WORD 97.		
une 1999	V1.1.0	Noted by TSG-RAN		
Rapporteur for TS 25.33	31 is:	·		

Stephen Barrett
Motorola, GSM Products Division, UK

Tel: +44 1793 566217

Fax: +44 1793 566225

Email: sbarret1@ecid.cig.mot.com

This document is written using Microsoft Word 97.

the charge was the description of the William Court (1995). The court of the court minter was a simple Water Branch Com Control of Edward Control A Property St. A. ama in a sector of aparameters on Differ The state of the s Company of his A contraction Conversed to a gradual for the experience of the second to a legger and the control of the control of THE REPORT OF SHEET WAS A SHEET OF in engling factor of the activity of the complete the second of the complete the co war our or carry in his er instability of Case Appearable and Case Complete the H and another resultance to the control of the second i indagraditari galaguri, 1.2.2 Moreul by 2000-4947 (0.1727) 0.000 AND A STATE OF THE WORK es la same de la legación de la legación de la secución icono. Em una sacrona en en esca Carlot Carlot Carlot Carlot Carlot Carlot Carlot AND THE WALL OF THE AND THE 1967年中国大学的中国大学的

3GPP

A Share Children A 11 V 1

the less told to the presentation

the second with the first plant of the experience of the experienc THIS PAGE BLANK (USPTO)

article of the state of the control of the state of the state of the section of the sect and the second of the second o Statement of the property control of the region.

Control of the company of the compan

Harve as a profession of Control Assets Aug.

And the second of the second o